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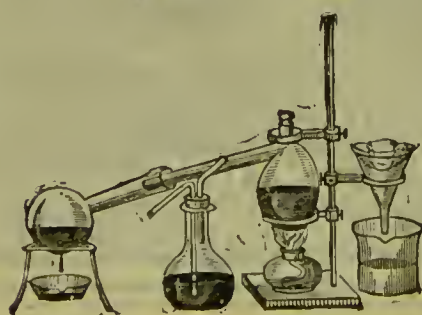
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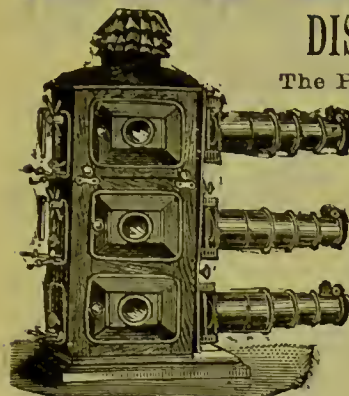
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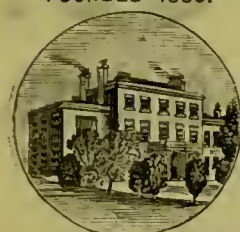
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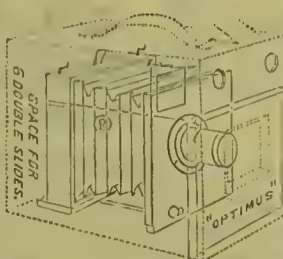
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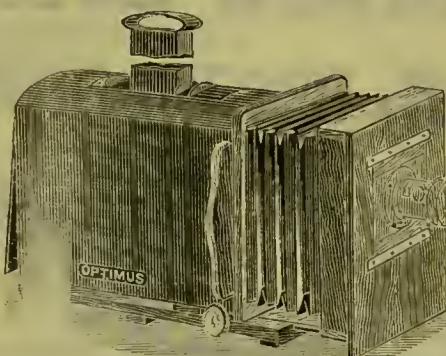
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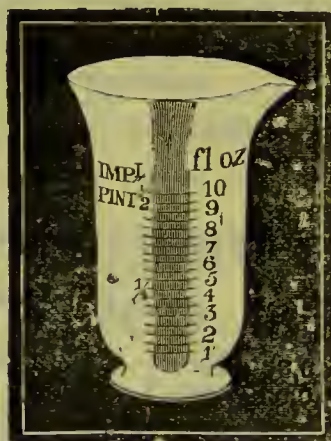
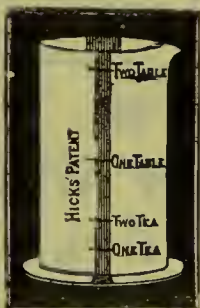
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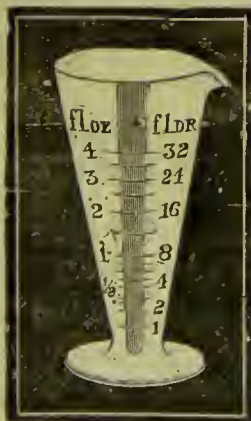
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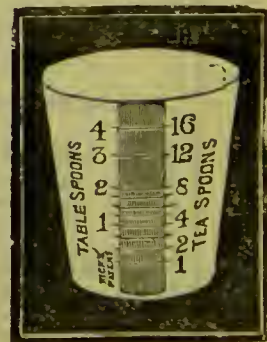
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BEST IN THE MARKET.

HEADS PURE TIN,

AND

GUARANTEED FREE FROM LEAD.

GLASS,

FINEST ANNEALED.

SYPHONS.

READ

the following:—

"Edinburgh.

"We beg to say that we have used your

"Syphons for many years, and are very well

"pleased with them. We have tried other makers

"but always found yours superior. We think your

"Syphons the best of any we have seen.

"We are, yours truly, H. C. BAILDON & SON."

"Bournemouth.

"We cannot, we think, do better than tell you that of the Syphon

"supplied us by you, and used by us during three successive seasons, we have no

"had one out of order—if we except two with broken tubes; and only one burst,

"and that on first time of filling. The Plating is, we consider, of special excellence

"and wears well. We shall not need to look farther whilst you continue to supply us with what

"we consider the best value in the market.—Yours truly, J. M. DOWDEN & CO."



PRICES, FULL PARTICULARS, AND TESTIMONIALS, APPLY TO

FAVARGER & CO., 76 TURNMILL STREET, E.C., LONDON

H. BRONNLEY & CO'S
DESICCATED TOILET & MEDICATED SOAPS

Are manufactured by

MILLING SYSTEM.

Quality and elegance of the most prominent foreign makes.

SUPERFATTED SOAPS.

Steam Works—34 Verulam St., Holborn, London, E.C.

"CYMRY AM BYTH."

"ABSOLUTELY PURE."



REGISTERED.

ASK FOR ELLIS'S.

ELLIS'S
RUTHIN
WATERS.

CAUTION.—Corks branded "R. ELLIS & SON, RUTHIN." Every Label is Registered, and bears Name and Trade Mark (Goat on Shield).

SOLE ADDRESS—R. ELLIS & SON, RUTHIN, NORTH WALES.

London Agents: W. BEST & SONS, Henrietta Street, Cavendish Square.

BY SPECIAL
H.R.H. THE DUKE OF
ROYAL



APPOINTMENT TO
CONNAUGHT AND THE
FAMILY.

BOURNE WATERS.

THE PUREST IN ENGLAND.

R. M. MILLS & CO., BOURNE, LINCOLNSHIRE,

MANUFACTURERS OF

SODA, POTASH, LITHIA, AND SELTZER WATERS,
LEMONADE, AND AROMATIC GINGER ALE.

4-dozen and 6-dozen Cases Carriage Paid.

Special attention is invited to our manufacture of

LITHIA WATER.

Each Bottle contains an average dose of Carbonate of Lithia—the recognised Specific for Gout.

THE LATEST SPECIALITY—the Celebrated Artesian Bourne Water in Pints and Quarts for Table Use.

Prices and Pamphlet on application. Agents appointed.

Messrs. INGRAM & ROYLE, 52 Farringdon Street, Wholesale Agents for the sale of our Waters.

TELEPHONE, No. 7522.

TELEGRAPHIC ADDRESS—"IDRIS KENTISH TOWN."

IDRIS & CO.

The Largest Syphon Fillers in the United Kingdom.

SODA. Brilliant, Pungent, and Sparkling.

POTASH. Prepared according to the British Pharmacopœia.

SELTZER. Pure and Delicious Table Water.

LITHIA of guaranteed strength.

LEMONADE. Pure fruity flavour of ripe Lemons.

PURITY. Water filtered by a special process, by which absolute purity is guaranteed. Distilled water used as required. Pure Chemicals only employed. All Goods are regularly subjected to strict analysis.

ELEGANT SYPHONS. Best Block Tin or Silver-plated Tops. IDRIS & Co. make their own Syphons, and can therefore guarantee freedom from deleterious metal.

LOWEST PRICES for Water, both in Syphons and Bottles. Write for Price List.

PROMPT DELIVERY by our Vans in London and Suburbs. Customers called on regularly once or twice a week. Country orders dispatched same day as received.

IDRIS & CO. now supply a larger number of the London Hospitals, Public Institutions, and Chemists, than any other Manufacturers, which is in itself a sufficient guarantee of the excellence and purity of the Waters supplied by them.

"I have examined the Mineral Waters prepared by IDRIS & CO., and find that in regard to Chemical purity and brilliancy, they are unsurpassable."

JAMES EDMUNDS, M.D., M.R.C.P. Lond., &c.

Medical Officer of Health and Public Analyst to St. James's, London.

IDRIS & COMPANY,

KENTISH TOWN, LONDON, N.W.

ONLY PRIZE MEDAL

HIGHEST PRIZE MEDAL

LONDON. 1881
TELEGRAPHIC ADDRESS
RUBINE, LONDON

BRADFORD 1882.

PURE WATERS
GOOD AERATION
CHEAP PRICES
PURE TIN TOPPED OR SILVERED
SYPHONS

CHEMISTS' & HOSPITALS ONLY SUPPLIED

PROTECTION FROM COMPETITION OF STORES,
GROCERS, WINE MERCHANTS &c.

PRICES & SAMPLES OF SYPHONS OR
BOTTLES SENT FREE

THE CHEMISTS' AERATED AND MINERAL WATERS
ASSOCIATION LIMITED.

45 GIFFORD ST. LONDON. MONTPELLIER WORKS, STARBECK, HARROGATE. SUN FACTORY, BRISTOL.





1888, C. 2877.

IN THE HIGH COURT OF JUSTICE, CHANCERY DIVISION.

MR. JUSTICE CHITTY.

MR. WARD, Regr.

Friday, the 25th day of January, 1889.

BETWEEN

COLEMAN & COMPANY (LIMITED),
PLAINTIFFS,
 AND
D. PEARSON (TRADING AS LIEBIG'S WINE COMPANY),
DEFENDANT.

UPON MOTION this day made unto this Court by Counsel for the Plaintiffs, that the Defendant might stand committed to Prison for his contempt of this Court by having on or about the 10th November, 1888, procured to be printed, and having purchased and published a large number of copies of an article in the *Hospital Gazette*, containing passages to the effect that the Plaintiffs' preparations in the writ mentioned does not contain Meat or Extract of Meat, in breach of the Injunction dated the 15th August, 1888, and upon hearing Counsel for the Defendant, and upon reading the pleadings, the order dated the 15th August, 1888, an Affidavit of William Coleman, filed the 27th December, 1888, and the exhibits therein referred to an Affidavit of William Isaac Simpson, also filed the 27th December, 1888, an Affidavit of Alfred William Wordley, filed the 10th of January, 1889, and an Affidavit of Henry Hillier, filed the 11th January, 1889, and a notice signed by D. Pearson, filed in the Registrar's Book.

And the Plaintiffs by their Counsel admitting that the Defendant has paid to them the sum of Fifty Pounds for their agreed costs of this action, and the Plaintiffs and Defendant by their Counsel consenting that this motion should be treated as a motion for Judgment, and consenting to this judgment. THIS COURT DOETH BY CONSENT ORDER that the Defendant, his Agents, Servants, Travellers and Representatives be perpetually restrained from representing or stating in any way, either verbally or in writing, and in particular either by circular or spurious experiment, or otherwise, that the Plaintiff Company's Preparation does not contain Meat or Extract of Meat, or any other ingredient stated by the Plaintiff Company to be contained therein, or otherwise slandering or libelling the Plaintiff Company in their trade, or otherwise representing, or suggesting, or doing anything calculated to represent, or suggest that the Plaintiff Company's Preparation is spurious or not genuine. Liberty to apply.

ESS. LEMON

(NEW CROP)

Direct from the Manufacturers !!

FOR very many years past we have been able to offer to the Trade Essence of Lemon of exceptional quality; such as could not be obtained through other sources.

Two members of our firm, at various periods, have spent considerable time in the country of its production, in order to arrange for its being made especially for us. In fact, some twenty years ago, when we first introduced our "Speciality" quality, good Essence was unknown in the English Market. We have, however, never ceased studying the question of how we might still improve our position in this article, and have at last decided to **MANUFACTURE IT OURSELVES ON THE SPOT!** It is our pleasure therefore to be able to announce to our friends, and the Trade generally, that we have established works in Messina, Strada Antico Cimitero, for the manufacture of Essences Lemon, Orange, and Bergamot, and that we have already commenced operations; our Mr. A. W. BUSH is now in Messina superintending the manufacture.

We are now placed in the **unique position** of being able to offer the above Essences **absolutely pure**, and **guaranteed made from the finest** selected fruit only. We shall, of course, also continue to offer good commercial qualities as heretofore. We have received advices of first shipments, and any orders entrusted to our care can be forwarded immediately on arrival.

We take this opportunity of mentioning that Ess. Lemon made from the early fruit is superior to that made from the fruit gathered later in the season. We should therefore advise our friends to make contracts for forward delivery immediately, for in such cases we shall be able to hold the early Essence in stock for them.

In consequence of our Branch Establishment in Messina we shall be exceptionally well placed; and, although the market for new Essences is in no way easier, still, by reason of our position we have been enabled to make **AN IMPORTANT REDUCTION IN OUR PRICES.**

Our advices state that the market is very firm for all Essences, and a rise in prices probable, we should advise our friends to make contracts early. Should any of our clients desire it we can execute orders direct from our works in Sicily.

W. J. BUSH & CO.
ARTILLERY LANE, LONDON.

TO AERATED WATER MANUFACTURERS

HAY'S

SOLUBLE ESSENCES

REGISTERED

ARE GUARANTEED TO BE THE FINEST IN THE MARKET

Honourable Mention: International Food Exhibition, Agricultural Hall, London, Oct., 1880. Gold Medal: Soc. of Arts, Paris, 1883.

HAY'S SOLUBLE ESSENCE OF JAMAICA GINGER,
A Pure Essence of the Finest Ginger.
Trade Price 5/- per lb.; 12 lbs. and upwards, 4/6.

HAY'S FORTIFIED ESSENCE OF JAMAICA GINGER,
For First Quality Ginger Ale.
Trade Price 5/6 per lb.; 12 lbs. and upwards, 5/-.

HAY'S GINGER ALE EXTRACT,
For Second Quality Ginger Ale.
Imparts Pungency, Colouring, great Brilliancy, and an unusually Fine Ginger Flavour and Aroma.
Trade Price 4/6 per lb.; 12 lbs. and upwards 4/-.

HAY'S GINGER ALE ESSENCE,
For Third Quality Ginger Ale.
his Essence makes a beverage that is unsurpassed by the so-called finest Best Ginger Ale.
Trade Price 9/- lb.; 12 lbs. and upwards, 8/6.

THESE ESSENCES

Have obtained the Highest Testimonials from all the Medical Journals, and from the Principal Trade Journal in this and other countries.

TRADE MARK



REGISTERED

For ORANGE, VANILLA, and all other Essences,
SEND FOR PRICE LIST.

HAY'S HOP ALE ESSENCE,
For the manufacture of the Finest Aerated Hop Ale. This Essence is made from the choicest Hops grown, and is unrivalled for its peculiarly fine Hop Flavour and Aroma. Hop Ale made from this Essence has the full flavour of the finest Hops, and is a really appetising Bitter Beer.
Trade Price 8/6 per lb.; 12 lbs. and upwards 8/-.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.
No. 1. Highly Concentrated.
Trade Price 6/6 per lb.; 2 lbs. and upwards 8/-.

HAY'S SOLUBLE ESSENCE OF MESSINA LEMONS.
No. 2. Makes an exquisitely fine Lemonade.
Trade Price 6/6 per lb.; 12 lbs. and upwards, 6/-.

HAY'S LEMON FLAVOUR.
Imparts to Lemonade all the Fine Aroma and Flavour of the choicest Lemons.
Trade Price 5/- per lb.; 12 lbs. and upwards 4/6.

MANUFACTURING
CHEMIST
BEVERLEY ROAD

"PREMIER BRAND"

ESSENTIAL OILS.

Concentrated Fruit Essences—Soluble

MANUFACTURED BY

JOHN CUMMOCK

Who has received Hundreds of Unsolicited Testimonials, also THREE GOLD MEDALS, besides other Honours.

Chemists manufacturing their own Aerated Drinks should write for Prices and Samples of the following:—

ESSENCE "SPARKLING LIMETTA"—Soluble "Essence of Lemon"

ESSENCE "LEMON SQUASH"—Essence for Sherbet

ESSENCE "TONIC HEADING"—Essence for Ginger Ale

AND COMPARE WITH OTHER MAKERS.

Manufactory & Offices: 45 ROPE WORK LANE, GLASGOW.
LATE 32 MAIN STREET.

EUGENE GERAUT & CO.

139 & 141 FARRINGDON ROAD, LONDON, E.C.

ALL SELTZOGENES AND SYPHONS,

Previous to being delivered, are tested at a pressure of 240 lbs. per square inch, being double that which they are used at; by this we can guarantee every machine on its leaving our firm.

It must be distinctly understood that all Seltzogenes and Syphons bearing our name are of pure Tin, and made on the PREMISES OF THE ABOVE FIRM, consequently must not be confounded with other cheaper, and inferior foreign goods that may at any time be forced on the market. The ever-increasing demand for our goods convinces us that we are, as hitherto, the leading and largest firm in this class of trade.

Complete with Funnels, Stopper, and directions for using. For order of £5 and upwards Customers can have their Names stamped on Metals free of charge.

SELTZOGENES REPAIRED, REWIRED, & TESTED BY EXPERIENCED WORKMEN.

POWDERS FOR SELTZOGENES AND GAZOGENES.

Illustrated Price List on application.

**DOWN AGAIN !!!**

FEVRE'S SELTZOGENES.

	2 PINT.	3 PINT.	5 PINT.	8 PINT.
Caned, each	7/	8/	12/5	20/9
	2 PINT.	3 PINT.	5 PINT.	8 PINT.
Wired, each	6/6	7/9	11/9	18/11

£2 worth or more, 5 per cent. discount.

MAY, ROBERTS & CO., 9 CLERKENWELL ROAD, LONDON, E.C.

Telegraphic Address—"FEEDING BOTTLES LONDON."

**FLATNESS OF TASTE**

SO COMMON IN FILTERED WATER,

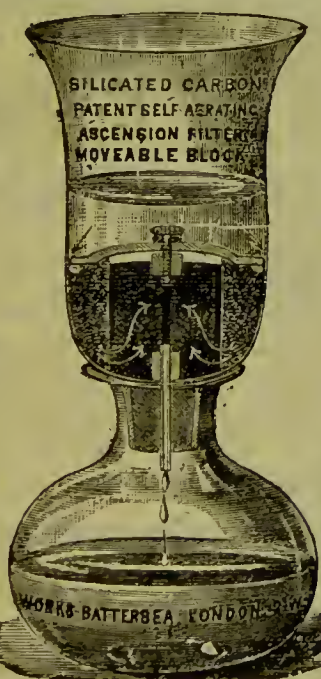
OBVIATED

BY USING

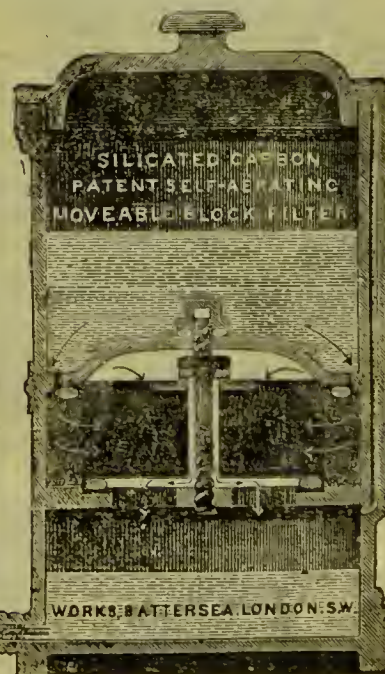
SILICATED CARBON FILTERS AERATED

By means of which the water is Aerated and Filtered simultaneously, rendering it, even after boiling, Pure, Bright, and Palatable.

The Silicated Carbon Block can be Instantly Removed, leaving the whole of the Filter Open for Inspection and Cleansing.



Glass Table Filters.



Domestic Filters.

FOR PRICES AND FULL PARTICULARS, WRITE TO THE
SILICATED CARBON FILTER CO., BATTERSEA, LONDON, S.W.

PEARSE & WHEATLEY, 42 MINCING LANE, LONDON

(Telegraphic Address—PACIFICUS LONDON.)

WHOLESALE DEALERS & EXPORTERS OF TEA, COFFEE, ETC.

SUPPLY AT LOWEST MARKET RATES EITHER FOR HOME CONSUMPTION OR EXPORT

In original Boxes, Half Chests, or Chests, as imported.

Duty Paid or under Bond.

Prices and Samples on application.



Or in Lead or Foil Packets (1-lb., 1/2-lb., 1-lb., &c.),

Or in kilos., 1/2 kilos., or fractional parts, for countries using these weights.

Fancy Tin Boxes any size or weight.

SPECIAL BLENDS OF TEA (Duty-paid prices quoted).

No. A, 10d.	No. T, 11d.	No. 1, 1/	No. 2, 1/2	No. 2a, 1/3	No. 3, 1/4	No. 3a, 1/5	No. 4, 1/6	No. 4a, 1/7 1/2	No. 5, 1/9	No. 5a, 1/10 1/2	No. 6, 2/	X, 2/4
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In Boxes, 20 lbs. or 40 lbs.; 1/2-Chests, 60 lbs.; or Chests, 100 lbs. 60 lbs. carriage paid to any Station in England or Wales. Terms—Net Cash with order.

CEYLON TEAS (PURE)—
N LEAD PACKAGES (1/2-lb., 1-lb., or 1-lb.)
Most attractively labelled.

Culloden	Grange	Sheen	Orwell	Mooloya	Pen-y-lan	St. Ley's
1/4	1/6	1/8	1/10	2/2	2/6	2/9

Duty-paid Prices.

(For Export under Bond, 6d. per lb. less.)

Export Department.—Teas or Coffees in Bond. Shipped to any part of the world. Terms, f.o.b. London; against tanker's credit or remittance. Samples, Price Current, and every information on application.

RAW COFFEES (Duty 14s. cwt.).

Rio, Santos, Costa Rica, Mocha, East India, Mysore, Naidoobatum, Jamaica, Porto Rico, Ceylon, Guatemala, Manila, Java, &c.



AT MARKET PRICES.

ROASTED COFFEES (Duty Paid).

10 1/2 d., 1/1, 1/2, 1/3, 1/4; Mocha, 1/5.

In Bags, 28 lbs., 56 lbs., or 112 lbs. net. Bags free.

Also supplied Ground in 7 lb., 14-lb.

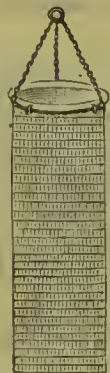
28-lb., or 56-lb. tins.

THE NEW FRENCH COFFEE—CAFE FRANCAIS

to sell at 10d., 1/1, 1/4, and 1/6, in 1/2-lb., 1-lb., and 1-lb. Canisters. Most tastefully labelled, without any firm's name appearing.

ANDREWS' FILTERS

No. 1, 12/6. FOR THICK LIQUIDS.



Used Extensively by Manufacturing Chemists and Druggists.

Sent Carriage Paid on receipt of Postal Order or Cheque for 12/6 or 18/6.

R. W. ANDREWS,

Filter Manufacturer,

330 High Holborn, London, W.C.

No. 2, 18/6.



CHEMISTS' TEA AGENCY.

WALKER & DALRYMPLE'S

BROKEN-LEAF TEA, 1s. 8d. per lb.

A MONEY SAVING TEA. ABSOLUTELY PURE.

The small leaf from some of the finest India and China Teas. Produces Tea in the cup, stronger, richer, and cheaper than most whole-leaf Teas. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S

INTERMEDIATE TEA, 2s. per lb.

BEST at the PRICE EVER SOLD. Great strength and a most useful Tea where there is a large consumption. Recommended to all who wish to SAVE in their Tea. Agents appointed, where unrepresented, throughout the United Kingdom.

WALKER & DALRYMPLE'S TEAS.—

AGENTS APPOINTED, where unrepresented, throughout the United Kingdom. Prospectus and Samples Free on Application. Warehouses, 164, 166, 168 and 160 WHITECHAPEL ROAD, and 2, 4, 6, 8, 10, 11, and 12 BRADY STREET, LONDON. P.O.O. payable at head office. Bankers, the National Provincial Bank of England.

MILK IN POWDER

PREPARED BY THE SWISS MILK CO., ST. GALL, SWITZERLAND.

UNSWEETENED OR SWEETENED.

The cheapest, purest, and most nutritious of all similar productions.

The Lancet says:—A very interesting and valuable preparation.

British Medical says:—The preparation represents the highest possible degree of concentration which can be obtained, and is sure to be appreciated.

The Medical Press says:—A milk which is with difficulty distinguished from fresh cow's milk.

London Office, 61 Mark Lane, E.C.

EIGHT PRIZE MEDALS AWARDED

GOODALL'S HOUSEHOLD SPECIALITIES.

YORKSHIRE RELISH.

Most Delicious Sauce in the World. Bottles, 6d., 1s., and 2s. each

GOODALL'S BAKING POWDER.

The Best in the World. 1d. Packets; 6d., 1s., 2s. and 5s. Tins.

GOODALL'S EGG POWDER.

One 6d. Tin is equal to 25 eggs. In 1d. Packets; 6d., 1s., and 5s. Tins.

GOODALL'S CUSTARD POWDER.

Delicious Custards without Eggs. In Boxes, 2d., 6d., and 1s. each

GOODALL'S BLANCMANGE POWDER

Delicious Blancmange in a Few Minutes. Boxes, 6d. and 1s. each.

GOODALL'S QUININE WINE, B.P.

Best Tonic yet Introduced. Bottles, 6d., 1s. and 2s. each.

GOODALL'S GINGER-BEER POWDER.

Makes the Best Ginger Beer. Packets, 3d. and 6d.

GOODALL'S BRUNSWICK BLACK.

For Painting Stoves, Grates, Iron, Tin, &c. 6d. and 1s. Bottles.

GOODALL'S LAVENDER WATER.

A Rich and Lasting Perfume. Bottles, 1s., 2s., and 5s. each.

GOODALL'S PLATE POWDER.

For Polishing and Cleaning all Metals. Boxes, 6d., 1s. and 2s.

GOODALL'S JELLY SQUARES.

Make a Delicious and Nutritious Jelly. In ½- and 1-pint boxes, 3d. and 6d. each.

PROPRIETORS—GOODALL, BACKHOUSE & CO., LEEDS.

PATENT MEDICINES

AND

DRUGGISTS' SUNDRIES.

Monthly Price List of Patent Medicines, Druggists' Sundries, &c., will be sent post free on application to

GOODALL, BACKHOUSE & CO., LEEDS.

TYRER'S SAUCES AND "BOROUGH" KETCHUP

GOOD
VALUE

THE GIANT 1d. BOTTLE OF SAUCE.
LARGEST IN THE TRADE.

In Half-Gross Boxes, at 6/6 per Gross.*

"BOROUGH" KETCHUP, WORCESTER, HARVEY, YORKSHIRE
OR READING SAUCE.

1d. Sample Bottles, dozen parcels	..	..	per gross	5/	extra quality	6/
1d. Giant Bottles, dozen parcels	..	..	"	5/8	"	6/
1d. Giant Bottles, dozen parcels	..	..	"	6/	"	8/
1d. Bottles (flat or round), reputed ½-pint	..	..	"	8/6	"	8/
1d. Bottles (flat or round), reputed pint	..	..	"	18/	"	24/
1d. pint Imperial Round Stoppered Bottles	..	..	"	28/	"	32/
1d. pint Imperial	..	..	"	30/	"	38/
12½-gallon Casks (casks free) ..	..	..	each	60/	"	60/
				20/	"	32/

ROYAL CAFÉ SAUCE.

In 8-oz. square-stoppered bottles, 48/ per gross.

A rich, fruity Sauce of fine flavour, and worth especial attention, as being the most saleable in the market.

Samples of any kind Sent Free of all Cost by

PETER TYRER,

The "Borough" Ketchup and Sauce Maker,

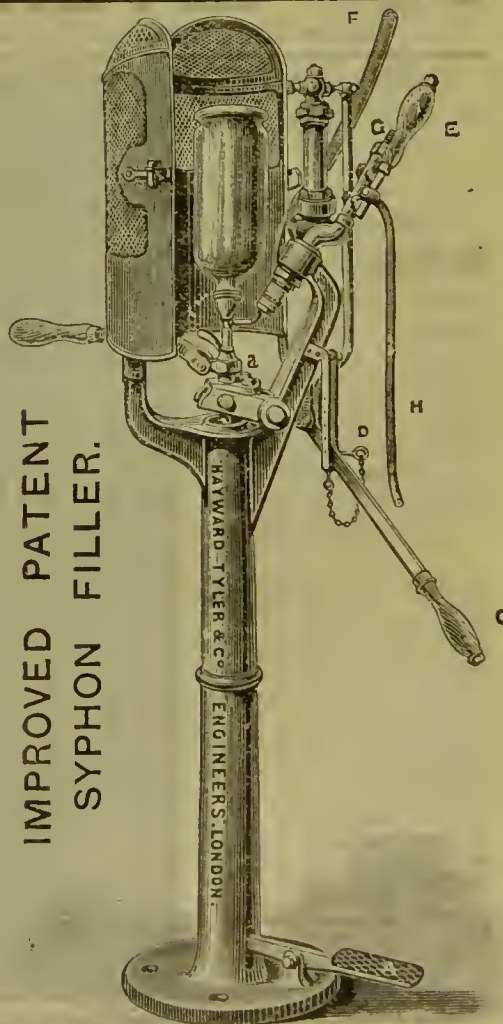
70 LONG LANE, BOROUGH, LONDON, S.E.

SCOTCH AGENCY: 113 WEST NILE STREET, GLASGOW.

Also Sold by W. & C. PANTIN, Upper Thames Street, LONDON, E.C.

BURGOYNE & CO., 16 Coleman Street, London, E.C.

JOS. TRAVERS & SONS, 119 Cannon Street, London, E.C.

HAYWARD TYLER & CO.
84, 85 WHITECROSS STREET, LONDON, E.C.


MILLAR'S BRITISH WINES.

ORANGE (suitable for Quinine), GINGER, RAISIN, COWSLIP, CHERRY, &c.
A. MILLAR & CO., Thomas Street, DUBLIN.

Sole Agents for London and District—**H. J. ROYDANT & CO., 75 Acre Lane, Erixton, S W**

Introduced 1855.]

ROBINSON'S CONCENTRATED WATERS.

[Introduced 1856.]

One Ounce of these Waters added to Forty Ounces of Distilled Water forms a clear Medicated Water (without filtering), similar in every respect to those prepared according to the directions of the British Pharmacopœia, and free from all Chemical impurity. They will keep good any length of time in any climate.



Aqua Anethi, Concent., 4/ lb.	Aqua Cinnam. Ver. Concent., 8/ lb.	Aqua Pœnleuli, Concent., 4/ lb.	Aqua Pimentœ, Concent., 4/ lb.
" Anisi " 4/ "	" Cassia " 4/ "	" Menth. Pip. " 4/ "	" Rosœ " 8/ "
" Camphorœ " 4/ "	" Flor. Anran. " 8/ "	" Ang. " 8/ "	" Rosœ Virgin. " 10/ "
" Carui " 4/ "	" Flor. Sambuci " 8/ "	" Virid. " 4/ "	

The above are put up in Bottles of 4 lb. or 1 lb. and upwards, each of which has the Inventor's Protection Label over Cork.

From the LANCET, July 15, 1882:—"CONCENTRATED WATERS (Robinson's, Pendleton, Manchester).—Among the samples sent to us we find Aq. Anethi, Anisi, Cinnam. Ver., Rosœ, and some dozen of others. Diluted with forty parts of water they form the ordinary waters of the Pharmacopœia. They are excellent in quality, and will be very useful, especially in country practices.

Wholesale Agents: **HEARON & Co., London**, and most Provincial Wholesale Druggists. PREPARED BY THE INVENTOR.
B. ROBINSON, MANUFACTURING CHEMIST, DISTILLER, AND BREWER OF BRITISH WINES, MANCHESTER.

ROBERT GIBSON & SONS,

MANUFACTURERS OF HIGH-CLASS LOZENGES OF EVERY DESCRIPTION,

JUJUBES, BOILED SUGARS, COMPRESSED PELLETS, &c., &c.

Shipped through London Houses to all parts of the World. Price Lists sent on application to the Works,

ERSKINE STREET, HULME MANCHESTER ENGLAND.
LONDON DEPOT—1 AUSTRALIAN AVENUE.

INTERNATIONAL FISHERIES EXHIBITION, LONDON, 1883.

COD LIVER OIL.

The Only GOLD MEDAL

For British Exhibitors was awarded to

T. J. SMITH,

10 & 11 NORTH CHURCH SIDE, HULL.

Importer of Norwegian, Newfoundland, & other varieties.

Low Quotations on application. Delivered at London or Liverpool

HIGHEST AWARDS,

**Liverpool, Glasgow, and
 Newcastle.**

Copy of Analysis by

Sir Charles A. Cameron,

Ex-President and Professor of Hygiene Chemistry, Royal College of Surgeons, Ireland; President of the Public Health Medical Society; Vice-President of the Institute of Chemistry of Great Britain; and Chief Medical Officer of Health, Dublin.

**ROYAL COLLEGE OF SURGEONS,
 STEPHEN'S GREEN, DUBLIN,
 11th September, 1888.**

I have carefully examined a specimen of "Pearson's Liebig's Beef Wine," purchased by myself in a retail shop in Dublin. It consists of Wine, Malt Extract, and Beef Juice, and the study of its composition leads me to believe that the expressed juice of five pounds of Beef is really contained in a quart of this Beef Wine. The ash is rich in soluble phosphates. Altogether it is a very valuable food. It is, unlike most preparations of the kind, rich in soluble albumen, and, in short, all its ingredients are in the most effective state for digestion and assimilation, and I can strongly recommend it.

(Signed)

CHARLES A. CAMERON.

As the Best Preparation for Giving Nourishment and Strength.

The Juice of 5 lbs. of the Best Beef is dissolved in each quart of the Wine. None Genuine unless signed "D. PEARSON."
Sole Manufacturer—LIEBIG'S WINE CO., 66 & 68 Highfield Street, LIVERPOOL; 12 St. Helen's Place, LONDON

The "Hospital Gazette" of September 1, 1888, says:—

Samples of so-called Beef Wine have from time to time been submitted to our notice, but for the most they have been of a very unsatisfactory character. The Beef Essence contained in them being of infinitesimal proportions, if not entirely absent. "Pearson's Liebig's Beef Wine" was submitted to a scientific test in the presence of our representative and a large number of other Medical men, all of whom were satisfied that the article is what its makers represent it to be.

The "British Medical Journal," August 25, 1883, says:—

Of the many liquid foods submitted to the public, "Pearson's Liebig's Beef Wine" is, to our mind, by far one of the most agreeable to the taste, and should constitute what it claims to be—a most strengthening, invigorating, and stimulating liquid food, capable of rapid assimilation, and useful as a tonic in cases of debility and wasting illness.

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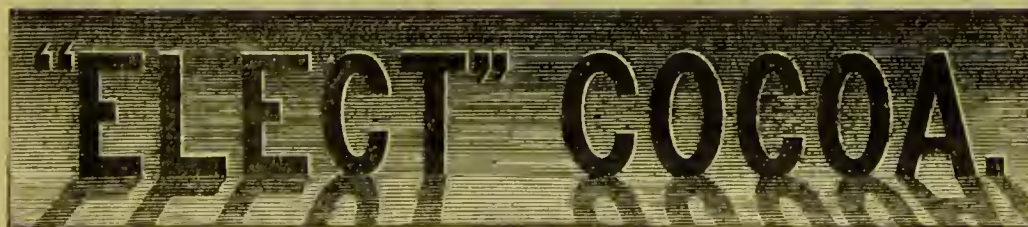
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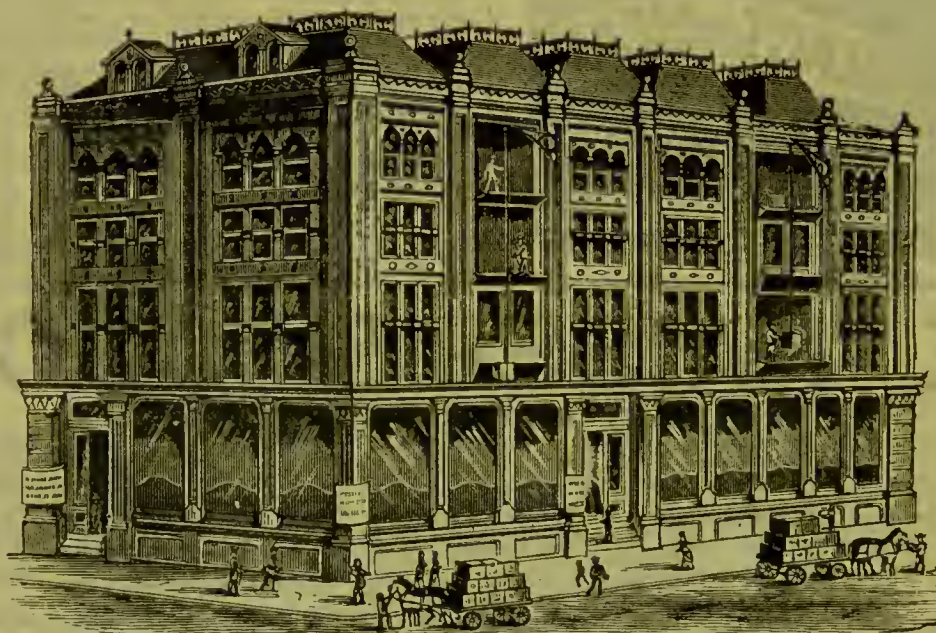
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Tabloids are not liable to gripe or to produce any disagreeable effects. They are coated with a solution of tolu, and can be swallowed without taste. As they dissolve imme-

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VINOLIA SOAP
contains an excess of
Saponifiable Fat.

VINOLIA SOAP
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Saponifiable Fat.

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VINOLIA SOAP
contains an excess of
Saponifiable Fat.

VINOLIA SOAP
contains an excess of
Saponifiable Fat.

Prices:—VINOLIA CREAM (for Eczema, Pruritus, etc.), 1s. 9d. and 6s. per box; VINOLIA CREAM SOAP (Medical), 2s. per box of 3 Tablets; VINOLIA CREAM SOAP (Toilet), 2s. 6d. per box of 3 Tablets.

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In carrying out our experiments to perfect these Tabloids we have devoted a vast amount of study and labour, and expended very large sums of money.

Our efforts to introduce our improvements have been strenuously opposed by those who simply copied (perhaps through lack of originality and barrenness of ideas) the antiquated concoctions of

Resistance. their more honourable and enterprising ancestors, who had, however, in reality made but slight advance over the dark ages of pharmacy when lizards' skins and frogs' eyes were regarded as indispensable remedies. These antiquated forms, which had answered for their ancestors, they said were good enough for the present generation, and they resisted with all their might our innovations and improvements. But at last they realise that they are out of harmony with the spirit of the times, and find the resistance futile and our success an accomplished fact.

The inevitable. In their confusion they are content to figure as our imitators, and attempt to suck our blood by slavishly copying our labels, our packages, the wording of our circulars, and our advertisements.

It is well known to the profession that the prime secret of our success has been quality and accuracy; our imitators in their haste for lucre forget this feature, and rely upon mis-leading our supporters by substituting inferior products and clumsily copying appearance. These imitators also overlook the fact that the world is getting wise, and distrusts those who pirate their neighbours' goods and prefers the genuine and pure.

How they do. By the enormous increase of our manufactures we have been enabled to reduce our prices from time to time, and shall always keep our prices at a moderate advance over the cost of pure drugs and skilled labour.

Pure drugs at moderate prices. Dr. J. A. Marston, Deputy Surgeon-General, in his

official report on the recent International Medical Congress, says:—

"These Tabloids are not more expensive than the ordinary forms of administering medicines, as they can be made at a very small advance on the crude drug."

We were the first to introduce Saccharin into this country, and the first to produce it in compressed form. We were also the first to adopt it for masking the taste of offensive drugs in the compressed form (about three years since), and, after careful study, we adopted it in such cases as we found desirable. We have been clumsily imitated in these saccharin products, as in other of our improvements.

TABLOIDS prepared by B. W. & Co.

Aconite Tinct. 1 min.	Phloecarpin Mur., 1/20 gr.
Aloin, 1/10 gr.	Piperine, 1/20 gr.
Aloin, 1/5 gr.	Podophyllin Resin, 1/4 gr.
Anti-Con- { Strych. 1/60 gr.	Potash Bicarb., 5 gr.
stipation { Belladon. Ex. 1/8 gr.	Potash Chlorate, 5 gr.
Ipecac. 1/16 gr.	Potash Chloride with Form.
Ammon. Bromide, 5 and 10 gr.	Potash Nit. (Sal Prunella), 5 gr.
Ammon. Chloride, 3, 5 and 10 gr.	Potash Permanganate, 1 and 2 gr.
Ammon. Chloride with Borax.	Potassium Bromide, 5 and 10 gr.
Antifebrin, 2 gr.	Potassium Iodide, 5 gr.
Antimonil et Potass. Tart. 1/50 gr.	Quinine, 1/10, 1/2, 1, 2, 3 and 5 gr.
Antipyrin, 5 gr.	Quinine Sulph., 1 gr.
Apomorphine Mur., 1/50 gr.	Ferri Hypophos., 2 gr.
Arsenious Acid, 1/100 and 1/50 gr.	Acid Arsenios.
Atropin Sulph., 1/100 gr.	Strychnine Sulph., aa 1/50 gr.
Belladonna Tinct., 1 min.	Saccharin, 1/100 gr.
Bismuth Sub-nit., 5 and 10 gr.	Quinine Sulph., 1 gr.
Caffein Citrate, 1 gr.	Acid Arsenios. 1/20 gr.
Calcium Sulphide, 1/10 gr.	Strychnine Sulph., 1/30 gr.
Capsicum Tinct., 1 min.	Rhei Comp. (Pil.), 3 gr.
Cascara Sagrada Ext., 2 gr.	Rhubarb and Magnesia (Gregory Powder), 5 gr.
Cascara Sagrada Ext. (Exsicc.), 1 gr.	Rhubarb and Soda, 5 gr.
Euonymin, 1/2 gr.	Rhubarb, 3 gr.
Nucis Vomica Ext. 1/16 gr.	Saccharin, 1/2 gr.
Cathartic Comp., U. S. P.	Salol, 5 gr.
Charcoal, 5 gr.	Santonin, 1/2 gr.
Chloral Hydrate, 5 gr.	Soda Bicarbonate, 5 gr.
Cocaine, Potash and Borax (Voice)	Soda-Mint.
Digitalis Tinct., 1 min.	Soda Salicylate, 3 and 5 gr.
Digitalin, 1/100 gr.	Soda Sulpho-carbolate, 5 gr.
Dover Powder, 1/4 gr.	Sodium Taurocholate, 4 gr.
Euonymin Resin, 1/8 gr.	Strophanthus Tinct., 2 min.
Hydrarg. Iod. Rub., 1/20 gr.	Sulphonal, 5 gr.
Hydrarg. Iod. Vir., 1/8 gr.	Tannin.
Hydrarg. Perchlor., 1/100 gr.	Test Tabloids (Fehling's).
Hydrarg. cum Creta (Grey Powder), 1/3 gr.	Tinct. Camph. Co. (Phlegoric), 2 min.
Hydrarg. Subchlor. (Calomel), 1/10 gr.	For. Pyrophos., 2 gr.
Hyoscyamus Tinct., 1 min.	Quinine Sulph., 1 gr.
Ipecac. and Opium (Dover Powd.), 5 gr.	Strychnine Sulph., 1/100 gr.
Ipecac. Powder, 5 gr.	
Iron and Quinine Cit., 3 gr.	Trinitrine (Nitroglycerine), 1/100 and 1/50
Laxative Vegetable.	Trinitrine and Amyl Nitrite.
Lithia Carbonate, 2 gr.	Trinitrine, 1/100 gr.
Livingstone Rousers.	Nitrite of Amyl, 1/2 gr.
Manganose Dioxide, 2 gr.	Capsicum, 1/50 gr.
Morphine Sulph., 1/20 and 1/8 gr.	Menthol, 1/50 gr.
Nitroglycerine.	
Nux Vomica Tinct., 1 min.	Urethano, 5 gr.
Opium Tinct. (Laudanum), 2 min.	Voice (Potash, Borax, and Cocaine).
Papain, 2 gr.	Warburg Tincture, 3 dram in each
Pepsin, Pure (Fairchild).	Zinc Sulphate, 1 gr. [tabloid.
Pepsin Saccharated, 5 gr.	Zinc Sulpho-carbolate, 2 gr
Peptonic.	Zymine Tabloids
Phonacetin, 5 gr.	Zymine Comp. Tabloids.

These pure and palatable Tabloids of Compressed Drugs are supplied in convenient packages for dispensing and at moderate prices.

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These prices are subject to usual discount.

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Proprietors and SOLE Manufacturers of the "VASELINE" Preparations.

VOICE TABLOIDS.

Composed of COCAINE, Chlorate of Potash, and Borax.

Impart a clear and silvery tone to the voice. Easily retained in the mouth while singing or speaking. Now used by the leading singers and public speakers throughout the world.

DIRECTIONS.—A single Tabloid may be slowly dissolved in the mouth to remove huskiness or hoarseness.

Supplied to the Trade in beautifully graven white metal boxes, blue silk label, at 8s. and 16s. per dozen. Retail prices, 1s. and 2s. per box.

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Spiritus Ætheris Nitrosi.

Guaranteed to contain the proportion of Nitrous Ether directed by the British Pharmacopœia.

Æther Nitrosus and Sol. Ætheris Nitrosi.

Respectively 8 and 4 times the strength of the Spirit.

Sol. Æthyl Nitritis.

Containing 3 per cent. of Pure Nitrite of Ethyl, in Absolute Alcohol and Glycerine.

See paper by Professor LEECH on "The comparative effects of Spiritus Ætheris Nitrosi and Solution of Ethyl Nitrite," *Pharmaceutical Journal*, December 22, 1888.

Spirit. Ammoniaë Aromaticus.

Made from Volcanic Ammonia.

JAMES WOOLLEY, SONS & CO.

Manufacturing Pharmaceutical Chemists,

MANCHESTER.

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PRICE LIST FORWARDED ON APPLICATION.



ESTABLISHED 1859.

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WE have pleasure in announcing to Continental subscribers that henceforth, by arrangement with the post offices of the various countries, subscriptions to THE CHEMIST AND DRUGGIST can be paid at any post office in Austria-Hungary, Belgium, Denmark, Germany, Holland, Norway, Russia, and Sweden at our rates, namely 10s. per annum, including postal delivery to subscribers in any of those countries. Subscriptions may date from the first issue of any month.

TO AMERICAN MANUFACTURERS.—Our representative, Mr. T. E. Parker, will pay a business visit to the United States and Canada during the next few months. Mr. Parker will leave England on March 23, and will be in New York early in April. He intends to also visit during his tour Philadelphia, Boston, Chicago, Pittsburgh, Baltimore, St. Louis, Cincinnati, Detroit, Toronto, and Montreal. Letters for him may be addressed to the office of THE CHEMIST AND DRUGGIST, 45 Liberty Street, New York.

LAST week we reported a reply given in the House of Commons by Mr. Stanhope, Secretary of State for War, to Mr. J. A. Picton, M.P., to the effect that a certain statement which had been published in THE CHEMIST AND DRUGGIST was incorrect. The statement published was that "Messrs. Seabury & Johnson, of 46 Jewin Street, have been appointed contractors to the British Government for the supply of surgical dressings, &c." The question asked was whether Messrs. Seabury & Johnson of New York had been appointed, &c. Will Mr. Stanhope be good enough to refer to a letter sent from the India Office to Messrs. Seabury & Johnson, dated January 22, 1889, and numbered S. 605. This will show him that our statement was not inaccurate. Messrs. Seabury & Johnson ask us further to

state that the reference to them in Mr. Picton's question as "of New York" seems to be intended to prejudice them, and is hardly fair. They claim that, being located in London, employing English labour in their manufactories here, and spending their profits in this country, they are fully entitled to be regarded as an English firm.

DRAWBACK ON TINCTURES.—A new order respecting the drawback to be allowed to exporters of spirituous medicines has been drawn up by the Board of Inland Revenue, and though not yet actually promulgated, is so far decided upon that we are able to publish its details with what may be relied upon as substantial accuracy. The Board have made considerable concessions in respect of the points on which their first order was complained of, and there seems to be now little, if any, reason for further complaint. Mr. Tyer, as chairman of the chemical section of the London Chamber of Commerce, in his annual address on Tuesday last paid a high tribute to the courtesy and fairness with which he and his colleagues had been met in this matter by the officials of the Board. The details of the new order will be found on page 328.

RAILWAY RATES.—We are asked to make a specially prominent announcement of the meeting of the drug trade at the offices of the London Chamber of Commerce on Tuesday next, at 2 P.M., to consider the proposed advance of railway rates for carriage of drugs, &c. The chemical section of the Chamber are particularly anxious to see a large and representative meeting of the trade on that occasion, and they specially invite druggists who are not members of the Chamber. They hope provincial firms will be represented, and they will be glad to have concise statements of real objections put before them. The general grievance will be found explained in our first editorial note this week.

THE PHARMACY BILL, 1889, has been introduced into the House of Commons with a powerful array of sponsors of both parties, and has been already read a first time. The idea seems to be that there will be better chance of getting it through by getting earlier opportunities in the House of Commons. It will not be in much danger if it can reach the smooth waters of the Upper House any time before the end of the session. We print the Bill as it now appears on page 323.

MR. JOHN WILLIAMS, one of the best-known men in pharmaceutical circles, died on Sunday last, in the sixty-fifth year of his age. He had been President of the Pharmaceutical Society and of the British Pharmaceutical Conference, and was a partner in the firm of Hopkin & Williams.

CORRESPONDENTS have again got on to the always congenial topic of medicine-stamp grievances. It will be noticed from one short letter under this heading that the Newcastle committee, lately formed, invite from complainants particulars of any difficulties and disputes they may have had with the authorities.

THE Pharmaceutical Council meeting on Wednesday was duller than usual, the only matters of interest which were discussed being the report of the Building Committee and the report of the Research Laboratory Committee. Neither of these, however, was the subject of general discussion. The building scheme enabled members to question the President regarding the financial position of the Society, and while he assured his colleagues that the funds permit the completion of the scheme, it was evident that there is a feeling that the Council must proceed with caution in spending the money remaining in the exchequer. We have so recently commented in detail regarding the work done in the Research Laboratory that we need only now call attention to the fact that, of the annual grant of 300*l.*, 210*l.* goes for salaries, and part of 75*l.* is appropriated as wages for a porter. Metropolitan chemists will notice that fifty-eight divisional secretaries have been appointed for London, but their duties have not yet been defined.

Metropolitan Reports.

CHEMICAL SOCIETY.—At the last meeting of this Society it was announced that the following changes in the Council list were proposed by the Council:—As President, Dr. W. J. Russell, F.R.S., vice Mr. Crookes, F.R.S.; as Vice-Presidents, Professor J. Emerson Reynolds, F.R.S., and Mr. R. Warington, F.R.S., vice Mr. Howard and Professor Schorlemmer; as Members of Council, Dr. N. Collie, Professor J. Ferguson, M.A., Mr. S. U. Pickering, M.A., and Mr. J. F. M. Page, vice Professors Carnelley, P. F. Frankland, and Ramsay, F.R.S., and Mr. Friswell.

THE METROPOLITAN BOARD OF WORKS AND THEIR CHEMIST.—At a meeting of the Metropolitan Board of Works held on the 1st inst. Mr. Lindsay moved that, it having been brought to the knowledge of the Board that the chemist accepted from the Tottenham Local Board of Health a fee of one hundred guineas for advice given to that Board (which had been authorised by the Metropolitan Board of Works to consult the chemist), without any notice of such fee being communicated to the Board or any consent of the Board being asked, "This Board is of opinion that the action of Mr. Dibdin on the occasion referred to should not be approved as a precedent, and that no officer consulted by other public bodies connected with the metropolis by leave of the Board should receive a fee without the express consent of the Board." Mr. Wenborn seconded the motion, which was agreed to.

A QUESTION OF VACCINE LYMPH.—In the Westminster County Court on Tuesday the case of *Dark v. Jones* came before his Honour Judge Bayley. The plaintiff trades as The Association for the Supply of Vaccine Lymph, and he sued defendant for 8s. 9d. for vaccine supplied to a Dr. Brown, of Penang. The plaintiff said the defendant ordered lymph to the value of 8s. 9d., which was sent on his order to Dr. Brown in points instead of in tubes. It turned out badly. A clerk in the employ of the plaintiff gave corroborative evidence. The defendant said he did not order the vaccine at all. If anyone was liable it was Dr. Brown. Dr. Brown said if anyone was liable for this debt it was himself. The vaccine was very poor, and entirely different from that which the plaintiff supplied him with some time before. His Honour said the wrong person had been sued, and there must be a verdict for the defendant with costs.

THE INSTITUTE OF CHEMISTRY.—The anniversary meeting of this institute was held on March 1 in Burlington House, when the officers for the ensuing year were elected, and Dr. James Bell, F.R.S., was re-elected president. The following vice-presidents were appointed:—Professor Armstrong, F.R.S., Professor Crum Brown, M.D., D.Sc., F.R.S., Sir Charles Cameron, M.D., Professor Odling, F.R.S., Dr. Stevenson, and Dr. Tidy. Dr. Bell, in his presidential address, stated that during the year there had been an increase of 38 Associates and 141 Fellows; and the income had exceeded the expenditure by 737l. At the first annual meeting in 1878 the number of Fellows on the register was 225; now it is 768. This is highly satisfactory, especially when it is borne in mind that a strict investigation of the qualifications of candidates for admission has been well exercised and maintained throughout from the foundation of the institute. Dr. Bell indicated several directions in which the efficiency of the institute has been much improved, and among other improvements suggested was an annual meeting of the Fellows, to last two or three days, at which papers might be read and discussions held on subjects in practical chemistry.

SOCIETY OF CHEMICAL INDUSTRY.—A meeting of the London section was held on Monday evening in Burlington House. There was an exceptionally large and influential attendance, Mr. David Howard presiding. The Technical Education Bills of last session are again to be brought into the Houses of Parliament this session, and these formed the subject of the evening's discussion. Before proceeding to this Mr. Tyrer intimated that he had received a paper on the melting-point of paraffin waxes from Mr. Redwood, and this was taken as read. The chairman then opened the discussion on the education question, which was expressly put in the form—"In what direction is State aid needed to assist technical education in chemistry?" After the chairman the following spoke:—Mr. Thos. Tyrer, Dr. J. H.

Gladstone, Mr. Cross, Mr. J. Mactear, Mr. Lloyd (King's College), Mr. Friswell, Professor Armstrong, Mr. Lascelles Scott, Mr. A. H. Allen, &c. There were almost as many different opinions expressed as there were speakers; but, after two and a half hours' discussion, the chairman submitted the following resolutions, which met with the unanimous approval of the meeting:—

1. That there is in elementary schools a great need of more practical training.
2. That as far as technical chemistry is concerned advanced education is needed rather than special training in elementary schools.

OBJECTED TO THE DOSE.—Mr. Frederick Alderson, M.D., M.R.C.S., &c., of Hammersmith, was fined 40s. and 2s. costs at the Hammersmith Police Court on Wednesday for assaulting a little girl named White. From the girl's evidence it seems that on Monday week she was passing Sotherton Road on an errand when the defendant came up and said she had rung his bell, although she had not done so. He smacked her face and took her in and gave her a powder. (Laughter.) He said he had a great mind to pull one of her teeth. (Laughter.) In answer to Mr. Paget the girl said she saw two boys go near the bell and run away. Mr. Paget: Was the powder nice or nasty?—Nasty. (Laughter.) On behalf of the defendant it was stated that he had for a long time been annoyed by runaway rings. He attempted in this case to arrange with the girl's father, who, however, was extortionate in his demands; and it was only when these failed that the fine was inflicted.

A CLERICAL "DOCTOR" WITH A WEAKNESS.—William Thomas Hodsell, 33, said to be a "doctor," but his name is not on the Medical Register, of Eagle Dwellings, City Road, was charged at the Guildhall Police Court last Saturday with stealing a number of surgical instruments, value 4l. 11s., the property of Messrs. S. Maw, Son & Thompson, Aldersgate Street. The manager of the prosecuting firm said that on Thursday previous the prisoner, who was attired as a clergyman, entered the premises just as they were closing, and asked to select some forceps. Witness told him that they were just closing, and that he had better call the next day. The prisoner said he was in a hurry, and was served. He selected two, but would not have them wrapped in paper, and put them in his pocket. As he did so a bundle of instruments fell out. Witness picked them up, and asked him where he got them from. He said, "I bought them, and paid 6s. 6d. for them." Witness knew that that could not be true, their value being 4l. 11s. He asked him for his name and address, as he did not like to charge him without the consent of the firm. The next day a clerical gentleman brought a number of other instruments to the premises which he had found in the prisoner's house. Proceedings were subsequently taken against the accused. As there was some doubt as to the prisoner's sanity, the Alderman remanded him for a week in order that he might be seen by a surgeon.

Provincial Reports.

Items of news, and newspapers containing matters of interest to the trade, sent to the Editor, will much oblige.

CONGLETON.

THE WRONG MEDICINE.—Ada Sherratt, aged 26, daughter of George H. Sherratt, was suffering from an affection of the spine, and Dr. Baird, who attended her, sent medicine to be taken internally and an application for external use. The doctor told the father that the application was a strong poison. In the night the deceased asked her mother for a dose of medicine, as she had found relief from a previous dose. The mother administered the dose from the lotion bottle, and a fatal result soon followed. The jury returned a verdict of "Death from misadventure."

LIVERPOOL.

FREE TRADE IN DRUGS.—The fact that drugs don't pay duty on arrival here induces enterprising individuals to send

"from the utmost parts of the earth" a variety of drugs in quantities, with the hope and in the belief that a market will be found for them in England. A short time since a parcel arrived from the West Coast of Africa containing a bark which was said to act like a mustard-plaster when applied to the skin, but would blister much more rapidly. No such property was possessed when it arrived here in a dry condition, and it would seem that to obtain the effect it must be used fresh from the tree. About the same time a native druggist sent to a Liverpool merchant samples of simple and compound drugs—eighteen mixtures in the form of coarse powders—with full descriptions of the virtues they possessed, bordering on the marvellous. It was curious to note that nearly all these were to be taken in rum. The unfortunate African is evidently not aware that the vile stuff which the Britisher sends him under this name, in exchange for valuable produce, is but little used at home.

BOARD OF TRADE REGULATIONS.—In the discussion which followed the reading of Dr. Symes's paper on gelatine pill-coating at the last meeting, Mr. Conroy said the subject was of special importance on account of the Board of Trade regulations, which came into operation on February 1, requiring all pills for merchant ships' use to be coated with gelatine. Mr. A. C. Abraham said this was not so. The regulation only referred to ships for the North Atlantic; for other ships there was no such regulation. [Mr. Abraham is wrong. As stated in our article on February 2, 1889, pills are to be gelatine-coated for all passenger ships. Those sent out in merchant ships' medicine-chests are not required to be so coated.—ED. C. & D.]

THE VERMIN-KILLER POISONING CASE.—Much sympathy is felt here for Mr. Thos. Jackson, of Manchester. Having fulfilled all the requirements of the law, he is severely taken to task and harshly treated by the coroner, and subjected to the annoyance and expense of a public prosecution on a mere technical question as to what constituted "known to the seller." Whereas, had the unfortunate woman gone to an oil-shop and bought six pennyworth of carbolic acid, it could have been supplied in a beer-bottle without a label or any word of caution or personal knowledge, and it would have proved quite as fatal as the vermin-killer. What is more, no coroner or jury could have called in question the legality of such a sale.

CHEMISTS' ASSISTANTS' AND APPRENTICES' SOCIETY.—A well-attended meeting was held on February 28 in the drawing-room of the Young Men's Christian Association for the purpose of inaugurating a society under the above style, the object being social and educational. Mr. H. B. Thornton, who was voted to the chair, spoke of the advantages likely to follow the formation of such a society, and said it was proposed to organise botanising excursions in addition to the ordinary social meetings. The secretary would aid the members by keeping a list of vacancies for those out of employment. Meetings for the reading of papers would also be held, and something of the nature of subscription balls would be tried from time to time. The following officers were elected:—President, Mr. H. B. Thornton; vice-president, Mr. J. F. Fletcher; secretary, Mr. F. Walker; and treasurer, Mr. B. C. Robinson. A social evening followed the business meeting. Some thirty-five members have already joined the society, the first ordinary meeting of which will be held on Tuesday, March 12. All assistants in Liverpool and neighbourhood will be welcomed to this meeting.

MANCHESTER.

THE CHEMICAL TRADE AND THE MANCHESTER CHAMBER OF COMMERCE.—The chemical and allied trades on the sectional committee of the Manchester Chamber of Commerce will be represented by the following gentlemen:—W. H. Bailey (W. H. Bailey & Co., chemical engineers), F. B. Bengel (Mottershead & Co., pharmaceutical chemists), F. S. Bayley (F. S. Bayley & Co., chemical merchants), F. Cawley (F. Cawley & Co., dyers), George E. Davis (hon. secretary to the committee), Charles Dreyfus (Clayton Aniline Company), J. Grossman, (dyers' chemicals), J. Haworth (Darwen Paper Mill Company, Limited), Thomas Jackson (chemical manufacturer), Ivan Levinstein, chairman of the Committee

(I. Levinstein & Co., aniline dyes and coal-tar products), Joseph Moseley (David Moseley & Sons, india-rubber manufacturers), E. G. McConnell (Edmund Potter & Co., calico printers), J. E. Riley (John Riley & Sons, alkali manufacturers), Vernon Roberts (Roberts, Dale & Co., colour and pigment manufacturers), David Shaw (oil refiner), David Spence (Peter Spence & Sons, alum manufacturers), W. Vickers (Thomas Vickers & Sons, chemical manure manufacturers). This committee held its first meeting in the rooms of the Chamber on the 1st inst., when the subject under discussion was the new railway classification of chemical merchandise and the rates applicable thereto.

SOCIETY OF CHEMICAL INDUSTRY—MANCHESTER SECTION.—The fifth meeting of the session of the Manchester section of the Society of Chemical Industry was held on Tuesday night at the Chemical Club, Victoria Hotel. Dr. G. H. Bailey, who presided, read a paper in which he described various experiments he has made with the view of discovering an accurate method of estimating the quantity of sulphur in coal. "The Resinous Constituents of Caoutchouc" was the subject of a paper by Mr. H. L. Terry, who pointed out the resemblances and differences between resins naturally occurring in sound rubber and those which are formed at a later period by the oxidation of the hydrocarbon. He also described a scheme for the separation of resins. The rubber is extracted with alcohol, and the extract evaporated to dryness. One to 2 grains are weighed out into a tared test-tube and boiled with benzene. The oxidised rubber melts and sticks to the glass, while the solution of Spiller's resin with natural resin is poured off and evaporated to dryness on the water-bath. Potassium carbonate solution is then added; after heating a short time it is filtered through a tared filter, and the residue dried at 100° C. and weighed. This is the natural resin. The filtrate contains the saponified Spiller's resin, which can be recovered by acidifying and agitation with ether. Sulphur is always present to some extent in the alcoholic extract, being easily recognised under the microscope by the strongly polarising rhombic crystals. It can be estimated by oxidation with fuming nitric acid in the usual manner, and allowed for in the calculation. Mr. J. Carter Bell, hon. secretary, submitted a short contribution on the subject of the estimation of iron in waters used for bleaching purposes.

"THE MANCHESTER CAB MYSTERY" has now been to a great extent unravelled. On Tuesday a coroner's jury returned a verdict of "Wilful murder" against a young man named Charles Parton. The evidence favours the theory that Fletcher, the poor man found dead in the cab, was killed not by chloroform, as in "The Mystery of a Hansom Cab," but by chloral, administered to him while under the influence of drink. There appears little reason to doubt that about a fortnight before the murder was committed Parton stole a bottle of chloral hydrate from the shop of Mr. Charles Bromley, pharmaceutical chemist, No. 1 Loudon Road, Liverpool. Mr. Bromley's story, told in court on Tuesday, was that "a person came into his shop and asked for 40 grs. of hydrate of chloral. That would be about 6.30 in the evening." Mr. Bromley proceeded: "I have since identified the man Parton, a prisoner now under remand, as the person. When he came in he said he wanted 30 grs. of chloral. I said, 'Where is your prescription?' He replied, 'I have not got any prescription.' I said, 'We never sell chloral without a medical man's prescription. I can't let you have it.' 'Oh, you must oblige me,' he said; 'with 10 grs. My mother suffers from angina pectoris. You must let me have 10 grs. Your assistant knows me.' 'I can't let you have it,' I answered; 'you must show me your doctor's certificate.' 'It is merely word of mouth,' he said; 'do oblige me, for it is a very important thing.' This was repeated several times, and at last I got a fresh bottle containing a pound of chloral and weighed 10 grs., and as I was folding up the paper the young man leaned over the counter, snatched the bottle, and ran away. I called loudly after him, but it was of no avail. I gave information to the police the same evening. I have since identified the man as Charles Parton." The Coroner: Have you any doubts about him? Witness: No. Mr. Burton, solicitor for the prisoner Parton, cross-examined the witness to test his recollection of Parton's appearance, but failed to shake his testimony. Mr. Bromley said he had no difficulty in recognising the man by his features.

OSWESTRY.

MISFORTUNE UPON MISFORTUNE.—On Tuesday night the mineral-water works belonging to Mr. Richard Jones, Oswestry, were destroyed by fire. The buildings were burnt down exactly six months ago, and had been reconstructed since. They were insured.

SHEFFIELD.

We understand that the Mr. Appleton who sold the soothing-syrup which brought about the death of a child, as reported last week, is not Mr. Arthur James Appleton, chemist and druggist, High Street, Attercliffe, but a brother of his, who is not a registered chemist and druggist, although he carries on business at Hill Top, Sheffield.

A DESTRUCTIVE FIRE occurred on Saturday night at the shop of Mr. Herbert England, at the corner of Bridgehouses and Chatham Street. The fire broke out in a warehouse adjoining the shop, where were two tins containing paraffin. The soldering of the tins having given way, the fire, at first a trifling one, became a large one, involving the shop as well as the warehouse.

THE CORONER AND THE QUACKS.—Mr. Wightman, the Sheffield coroner, has again spoken out on the iniquity of permitting unqualified men to practise medicine. On the 1st inst. he held two inquests, both on children. The first death was that of a girl seven years of age, named Bradshaw. Her grandmother said she first fetched Mr. Burrell, of Rock Street, believing him to be a qualified medical man, to attend the child. She found afterwards that he was not so, and Mr. Allen, who has a dispensary near the Corporation Baths, was called in. He also turned out not to be qualified, and was unable to grant a certificate when the child died. The coroner said it was a shame that such men as Allen and Burrell should be allowed to hold themselves out as surgeons to people who were ignorant or did not take the trouble to inquire whether the man they employed was qualified or not. The consequence was that when a certificate was asked for it could not be obtained. He wished the Legislature would stop unqualified medical men in the same way that they had stopped solicitors. If a man who was not qualified commenced to practise as a solicitor he would soon be pulled up; if money and property of people were not to be trifled with, why should their lives? A verdict of "Death from natural causes" was returned.—The other inquest concerned the death of Grace Sharp, aged six years, who had been attended by Mr. Allen or his assistant. The father said he thought Mr. Allen was qualified. When asked for a certificate of death Mr. Allen said he could not give one, his excuse being that he had not seen the child, his assistant having attended it. The Coroner: He cannot give a certificate. He can give one, but no registrar dare take it; it is not worth the paper it is written on. The Father: Then he should not be allowed to sell medicine. The Coroner: That is the most sensible thing you have said. It is quite my opinion. You can very soon stop them selling medicine by making inquiries; and if you find they are not qualified, go somewhere else. You might as well call a cabin in so far as a certificate is concerned. A verdict of "Death from natural causes" was returned.

SCOTLAND.

EDINBURGH.

THE FASTING MAN.—At the meeting of the Royal Society on Monday night some "Observations on the Metabolism of Man during Starvation" were communicated by Drs. Noel Paton and Ralph Stockman. The results were noted during Jacques's thirty days' fast in Edinburgh in October last. The Frenchman lost one-fifth of his weight, but all the circumstances in connection with his feat were, according to the observers, extremely favourable to the maintenance of life on the smallest amount of tissue waste, the exercise taken being small, and the temperature of the room being so very high.

BROWNE'S CHLORODYNE.—At the annual dinner of the Royal Medical Society of this city, held last week, Sir James Crichton Browne, F.R.S., in proposing the toast of "The Society," said that a few years ago, when he was knighted, he received a communication from an old lady in the Mid-

lands, wholly unknown to him, who stated that she was glad to hear of the honour he had received, because for many years she had been taking his excellent chlorodyne. This lady was certainly somewhat mixed in her ideas, but had she, instead of attributing his rise in life to chlorodyne, attributed it to his once having been a member of the Royal Medical Society, she would have been nearer the mark.

THE SALE OF METHYLATED SPIRITS.—On Monday night a deputation of temperance people called on Councillor Macpherson with reference to the increasing consumption of methylated spirits on Sundays, with a view to the Town Council taking steps to restrict the sale of the drug by chemists and others. Councillor Macpherson promised to bring the matter before the Council, and, accordingly, at Tuesday's meeting notice of the following motion was given:—

"The magistrates and Council resolve to memorialise Government to introduce into Parliament and pass a measure to regulate the manufacture and sale of methylated spirit, in order to prevent the continuance of that spirit as an intoxicating liquor."

GLASGOW.

SEQUAH.—The reason now assigned for Sequah's delay in appearing *in propria persona* is that he cannot obtain a suitable place for indoor work, and is waiting for the advent of milder weather to start business in the open air.

MECHANICAL DENTIST.—James Gray, a young man of 21, was fined 5*l.* by Sheriff Balfour, on Wednesday, for contravention of the Dentists Act by having a signboard setting forth that he was a mechanical dentist, he not being on the Dentists' Register.

ALLEGED EXTENSIVE THEFT OF TARTARIC ACID.—Thomas Watson, sen., and Thomas Watson, jun., both residing in Maitland Street, and James Marshall, residing in Gairbraid Street, were committed for trial from the Central Police Court on March 1 on a charge of having stolen from a store at 16 Waterloo Lane, occupied by a firm of drysalers, 10 cwt. of tartaric acid, amounting in value to 80*l.* Marshall was storeman in the premises, while Watson, sen., did the cooping. The former, who sometimes carried the key of the place, is alleged to have gone back at nights along with the latter and stolen the acid, which they and Watson, jun., it is said, sold to ice-cream makers in the city.

EYE ART.—The immortal Baillie Nicol Jarvie, during his short and not wholly agreeable sojourn in the Rob Roy country, was wont to speak repiningly of the "comforts of the Santmarket." That classical quarter has long since lost its pristine prestige and salubrity, but some residue of its ancient amenity still lingers, since an enterprising barber—we beg pardon, a distinguished tonsorial artist—within its precincts adds to many exalted functions the absolutely unique one of "Artist in black eyes." Like most votaries of the muses, our tonsorial friend is not very perspicuous in his language, which without unnecessary violence might be variously construed; but his meaning may perhaps be guessed at by that section of the public who sometimes verify with startling intensity the realistic force of that affecting ditty "Two lovely black eyes." Druggists who are occasionally implored to "efface the lues" where extravasated liquor sanguinis lingers might do well to take a few lessons in this school of eye art.

HAWICK.

HAWICK PHARMACEUTICAL ASSOCIATION.—This association, which has been in a state of suspended animation for the last year or two, has been revived, and the first of the renewed meetings was held on Monday, March 4. There was a good attendance of members, and much interest was shown in the subject for the evening, which was the first of a series of demonstrations by Mr. Mabeu on "The Volumetric Analysis of the B.P." The lecture was mainly introductory, and consisted for the most part of definitions of the various terms, a general description of the apparatus and of the various indicators, together with practical illustrations of the various points brought forward. It is proposed to continue the meetings fortnightly.

It has been finally decided to hold the annual meeting of the American Pharmaceutical Association in San Francisco on June 20 of this year.

News.

THE conversion of Mr. John L. Johnston's business in "Bovril" into a limited liability company is announced.

A DESTRUCTIVE FIRE took place at the chemical works of Messrs. Forbes, Abbott & Lennard, near Rye, on Sunday night. The damages done are estimated at 3,000*l*.

THIS month's *Kew Bulletin* contains articles on "Fibre Industry at the Bahamas;" "Hardy Species of Eucalyptus;" "Yam Bean" (*Pachyrhizus tuberosus*), with plate; "West African Rubbers;" "Phylloxera in Asia Minor;" "Botanical Station at Lagos;" and "Chiza Bread" (*Campsiandra Comosa*). There is little of purely pharmaceutical interest in this number.

A STUPID ATTEMPT at poisoning was discovered at Blithbury, near Rugeley, the other day. A farmer returning home from market found his wife in a state of consternation because of a peculiar odour which some soup had. He smelt it, and quickly enough detected ammonia, and later he found that half a pint bottleful of liquid ammonia had been emptied into the soup. The police have in custody a person who is suspected to have done this stupid act.

KOLA NUTS FROM SIERRA LEONE.—The Governor of Sierra Leone, writing from Cassie on the Casseh Lake, reports that there is a considerable trade between the colony and Germany, as well as France, in dried kola nuts. Observing a quantity of rotten kola nuts drying in the sun, he asked the owner, who is the largest trader in the village, for what purpose they were intended, and he replied that when dried he sent them to Freetown, where he got 2*d*. per lb. for them, for shipment to Germany and France, to be made into cocoa. He added that the trade commenced two years ago.

A PROPOSED SOAP UNION.—The *Financial News* says the next important trade syndicate is to be a soap union. The intention is, not to raise the price of that indispensable article, but simply to organise the great soap manufacturers in view of an almost revolutionary invention affecting their industry. A patent for saponifying mineral oil is stated by that journal to have been privately worked for several months, and that therewith the finest primrose soap, now sold at 22*l*., can be made for 14*l*. a ton, while a commoner quality can be made for 7*l*. a ton. The production of soap in England is 45,000 tons a week, of which between 3,000 and 4,000 tons are made in London alone. Upon this outturn the profit is absurdly small, averaging only 3 per cent., and unless soap manufacturers combine to regulate prices on the introduction of the new process, even that small profit would disappear. Some very large firms have to be dealt with before the union can be formed, but the position of those who propose it is so strong, from the possession of this patent, that it is believed that the principal makers will join the movement.

HOW WYETHS WERE BURNT OUT.—A fortnight ago we gave a brief cable despatch regarding the fire which completely destroyed the warehouse of John Wyeth & Brothers, Walnut Street, Philadelphia. We have now received further particulars, which are as glowing as American descriptions of fires generally are. In brief we may state the fire originated just before noon on February 10 in the cellar of Frank E. Morgan's drug store, which was part of the main building, a handsome marble structure, occupied by John Wyeth & Brothers. The fire raged fiercely. "Great plate-glass windows cracked as if they had been egg-shells. In a few minutes the gable roof of John Wyeth & Brothers' store was on fire. The flames crept stealthily back and joined the blaze on the roof of the marble front." The roof fell, killing a fireman in its descent, and "when darkness came a mass of ruins marked the spot where a few hours before stood one of the handsomest drug stores in the country." Great sympathy is felt for Messrs. Wyeth Brothers, who commenced business in Walnut Street twenty-five years ago, and during that time have made a magnificent collection of apparatus, especially that for making compressed tablets, the loss of which cannot be represented by money. Mr. John Wyeth, senior member of the firm, in an interview with a reporter, estimated their loss, apart from the tablet machinery, at about \$500,000, with an insurance of between \$300,000 and \$400,000, and the building \$100,000.

Personalities.

MR. GWILYM EVANS, pharmaceutical chemist, Llanelly, has been elected vice-chairman of the Carmarthenshire County Council.

MR. E. CHUBB, from Roberts & Co., 76 New Bond Street, W., has acquired the business lately carried on by Mr. Joseph Wilson at 524 Hornsey Rise, London, N. Mr. Wilson has transferred his energies to a business at Chislehurst.

THE will of the late Mr. George Borwick, the manufacturer of baking-powder, &c., has been proved, the value of the personal estate being declared at 259,740*l*. 2*s*. 8*d*.

DR. W. J. RUSSELL, F.R.S., the next president of the Chemical Society, and professor of chemistry at St. Bartholomew's Hospital, has been elected an honorary member of the Athenæum Club.

MR. D. T. EVANS, A.P.S., late of Oxford, has succeeded to the business hitherto carried on by Mr. W. D. Sutton at High Street and the Parade, Margate. Mr. Sutton has accepted an engagement in China.

MR. W. R. FOWLER, of Southsea, has taken into partnership Mr. George Donaldson, hitherto his managing assistant, and previously managing assistant to Mr. Fowler's predecessor, Mr. W. H. Rastrick. The business is now conducted under the style of Fowler & Donaldson.

THERE is some talk of Sir William Jenner resigning his office at Court, owing to his continued illness. In that event he will be succeeded either by Dr. Russell Reynolds, who is now physician to the Household, or by Dr. Douglas Powell, who is one of the Queen's physicians in ordinary.

WILLS OF DECEASED CHEMISTS.

AT York, on December 12 last, administration of the personal estate of the late Mr. George Dennis, of York, wholesale druggist, who died on November 19, 1888, was granted to Mr. George Christopher Dennis, the deceased's only son, and as such his residuary legatee by substitution. The deceased left a will (dated February 11, 1856) in which he appointed as executors and residuary legatees in trust his wife and Mr. J. H. Thomas, and in which he gave his wife a beneficiary interest for life or widowhood in his whole estate. But both Mrs. Dennis and Mr. Thomas predeceased the testator. The gross value of the personal estate amounted to 8,941*l*. 13*s*. 8*d*.

Letters of administration of the personal estate of the late Mr. A. J. Evans, of Dorchester, chemist, who died on Aug. 23, 1888, at Charminster, intestate, were granted on September 28 last to Mrs. E. S. Evans, the widow, the sureties being Miss J. A. Evans and Mr. A. H. Evans, chemist and druggist, both of Dorchester. The gross effects amounted to 4,188*l*. 16*s*. 9*d*., and the net to 3,728*l*. 17*s*. 9*d*.

The will (dated February 12, 1866) of the late Mr. Robert Kemp, 205 Holloway Road, London, chemist and druggist, who died on July 2, 1888, was proved on July 26 last at the principal probate registry of the High Court of Justice by Mrs. Elizabeth Kemp, the widow and sole executrix. The testator expressly revokes all his previous wills and bequeaths the whole of his property, real and personal, to his widow for her absolute use. The gross value of the personalty amounted to 3,320*l*. 12*s*. 5*d*., and the net to 3,196*l*. 5*s*. 11*d*.

Letters of administration of the personal estate of the late Mr. J. B. Newcombe, of Okehampton, Devon, who died on September 22, 1888, a bachelor and intestate, were granted at the Exeter Probate District Registry on December 10 last, to Mr. S. P. B. Newcombe, the brother of the deceased, the father, Mr. E. Newcombe, having renounced and consented. The gross value of the personal estate amounted to 5,455*l*. 14*s*. 2*d*., and the net to 5,251*l*. 2*s*. 4*d*. The sureties are Mr. J. Palmer, butcher, and Mr. N. Robins, bank manager both of Okehampton.

Pharmaceutical Society of Great Britain.

COUNCIL MEETING.

ALL the members except Mr. Richardson and Mr. Schlacht were present when the President called the meeting to order at 11.20 on Wednesday morning; but Mr. Richardson dropped in as the secretary was finishing the minutes, so that a score of members sat round the table. The minutes disposed of, and as arising from them, the President announced that

THE PHARMACY BILL

had been introduced into the House of Commons. [This, we may explain, was on March 1.] The Bill is "backed" by Sir Henry Rosecoe, Dr. Farquharson, Sir Tindal Robertson, Mr. Craig, Sir Trevor Lawrence, and Sir Guyer Hunter. Slight applause greeted this announcement.

Dr. SYMES pointed out that in the official report of the last meeting it was stated that the motion to go forward with the Curriculum Bill had been carried unanimously, whereas he and others had not voted for it. He hoped the same error had not been made in the minutes.

The PRESIDENT looked and replied that the minutes merely said "adopted." This explanation satisfied Dr. Symes, and he so expressed himself.

THE LATE MR. JOHN WILLIAMS.

The PRESIDENT, in formally announcing to the Council the death of Mr. John Williams, said that it was now two years since the deceased gentleman had retired from the Council, and since then he (Mr. Williams) had presented a portrait of himself to the Society. On both of these occasions he had spoken of Mr. Williams's services to the Society and the handsome work which he had done to pharmacy generally, so that any lengthened speech on this occasion might appear fulsome. But he could not forget the facts that Mr. Williams had been one of the first pupils of the Society, that he had all along been a loyal supporter of it, and, dying as he did at a comparatively early age, his death was a distinct loss to pharmacy. Mr. Williams was a man of many sides; although well known to pharmacists and wholesale druggists, he was equally known and as highly respected by scientific men in this country and abroad. Also, his general knowledge was most comprehensive, and there was scarcely a scientific subject with which he had not some acquaintance. He could scarcely trust himself to speak of his relations with Mr. Williams as a friend and companion on many an excursion; he was a man of the heartiest good-fellowship socially, and officially he was indefatigable, in spite of bad health, in carrying out the duties imposed upon him by the Council. He begged to move—

That this Council desires to express to the relatives of the late Mr. John Williams the most sincere sympathy at the loss which they have sustained by his lamented decease; and at the same time to record the high esteem in which the gentleman was held by the Council for the valuable services he rendered to pharmacy during the seventeen years he was a member of the Council, and especially for the efficient manner in which he performed his duties as treasurer and president of the Society.

The VICE-PRESIDENT seconded the motion. Mr. Watt added a word expressing, on behalf of Scotland, a great sense of the loss sustained, and Mr. Greenish and Mr. Savage also bore testimony to their happy relations with the deceased gentleman, and their appreciation of his worth as a man.

The resolution was unanimously agreed to in silence.

ELECTIONS AND RESTORATIONS.

Several diplomas were granted to the pharmaceutical chemists who became such last month, and a number of persons were elected or restored to membership and lower positions of the Society. Mr. Evans raised a question regarding the election of Mr. Thomas George Stoddart, late of Edinburgh, and now of Melbourne, Victoria, but this was under a misapprehension that Mr. Stoddart was being placed on the register of chemists and druggists. From this business the Council passed to

THE FINANCIAL REPORT.

which was equally formal. This contained little of an unusual character, except that the Council enters this month with a balance of 233*l.* 7*s.* 2*d.*, and orders payments amounting to 659*l.* 2*s.* 11*d.* Mr. Hampson wished the flag to be raised while he asked a question, and when this was answered the report was adopted.

BENEVOLENT FUND.

The report of this committee also contained little of interest. One grant of 10*l.* was recommended, two cases were deferred for further consideration, and two were not entertained. It was reported that one annuitant had died since last meeting. The circumstances of the death having been explained in committee, the report was adopted on the motion of the Vice-President. A motion was also adopted granting the Bell scholars the second moiety (15*l.*) of their annual allowance. Then the report of the Library, Museum, Laboratory, and House Committee came on, being read by the secretary; but the only things in this which were not of a routine character were a proposal to erect a fume chamber in the lecture theatre, and a report regarding the appointment of

DIVISIONAL SECRETARIES FOR LONDON.

In moving the appointment of the following gentlemen the President explained that they had been selected by the committee, but that the gentlemen had agreed to act largely through the influence of the secretary and Mr. Allen, who had devoted four days to visiting the different districts:—

CITY, H. A. Thomas, 78 Gracechurch Street, E.C.
 BETHNAL GREEN, North-east, W. Harvey, 85 Approach Road, Victoria Park, E.
 " " South-west, A. P. Barnard, 83 Columbia Road, E.
 CHELSEA, E. L. Hickoy, 199 King's Road, Chelsea, S.W.
 FINSBURY, Holborn, C. E. Turner, 20 Bury Street, W.C.
 " Central, Geo. Pattison, 139 St. John Street Road, E.C.
 " East, Chas. Troke, 82 City Road, E.C.
 FULHAM, T. O. Sandell, 2 Keane Terrace, West Kensington, S.W.
 HACKNEY, North, W. Sadler, 257 Evering Road, Upper Clapton, N.E.
 " Central, Ralph Hall, 552 Kingsland Road, N.E.
 " South, R. O. Fitch, 255 Well Street, South Hackney, N.E.
 HAMMERSMITH, E. Cullinan, 2 Mall Road, Bridge Avenue, Hammersmith, W.
 HAMPSTEAD, E. B. Stamp, 29 High Street, Hampstead, N.W.
 ISLINGTON, North, J. Morris Broad, 510 Hornsey Road, N.
 " West, John Holding, 169 Hemingford Road, Barnshury, N.
 " East, T. Howard Hall, 80 Drayton Park, N.
 " South, J. T. W. Wallis, 78 Essex Road, N.
 KENSINGTON, North, Hy. Long, 48 High Street, Notting Hill, W.
 " South, J. T. Topholme, 1 Coleherne Terrace, Earls Court, S.W.
 MARYLEBONE, East, Wm. Martindale, 10 New Cavendish Street, W.
 " West, J. C. Hyslop, 39 Church Street, Marylebone, N.W.
 PADDINGTON, North, R. H. Parker, 35 Clifton Road, Maida Vale, W.
 " South, F. Andrews, 34 Leinster Terrace, Hyde Park, W.
 ST. GEORGE'S, HANOVER SQUARE, W. Gulliver, 6 Lower Belgrave Street, S.W.
 ST. PANCRAS, North, G. F. Bidloss, 97 Leighton Road, Kentish Town, N.W.
 " East, James Cornelius, 73 Camden Road, N.W.
 " West, J. W. T. Morrison, 2 Osnaburgh Street, N.W.
 " Felix Stevens, 123 Judd Street, W.C.
 SHOREDITCH, Hoxton, T. W. H. Hodson, 11 Sturt Street, Shepherdess Walk, N.
 " Haggerston, C. Wheeler, 143 Hackney Road, N.E.
 STRAND, W. Warren, 24 Russell Street, Covent Garden, W.C.
 TOWER HAMLETS, Whitechapel, A. O. Mundy, 11 Norton Folgate, E.
 " " St. George's, Chas. Walker, 8 Canon Street Road, E.
 " " Limehouse, G. B. Hatfield, 817 Commercial Road, E.
 " " Mile End, J. H. Gradidge, 393 Mile End Road, E.
 " " Stepney, James Ellard, 195 Commercial Road, E.
 " " Bromley and Bow, W. E. Haden, 221 Roman Road, E.
 " " Poplar, S. Kirk, 6 Obriest Street, Poplar, E.
 WESTMINSTER, H. N. B. Spink, Marsham Street, Westminster, S.W.
 BATTERSEA, C. M. Luxmore, 529 Battersea Park Road, S.W.
 CLAPHAM, W. P. Robinson, 17 Pavement, Clapham Common, S.W.
 CAMBERWELL, North, A. Pellew, 374 Old Kent Road, S.E.
 " Peckham, M. Howell, 61 High Street, Peckham, S.E.
 " Dulwich, F. T. Silvers, 25 Camberwell Green, S.E.
 LAMBETH, North, T. E. Scholey, 51 Lambeth Walk, S.E.
 " Kennington, H. Bate, 125 South Lambeth Road, S.W.
 " Brixton, F. Bascombe, 3 Grand Promenade, Brixton, S.W.
 " Norwood, T. H. Powell, 116 Denmark Hill, S.E.
 NEWINGTON, West, W. F. Smith, 280 Walworth Road, S.E.
 " Walworth, Jno. Butterworth, 21 Walworth Road, S.E.

SOUTHWARK, West, C. Umney, 50 Southwark Street, S.E.
 „ Rotherhithe, H. Wiggins, 236 Southwark Park Road, S.E.
 „ Bermondsey, H. F. Austin, 126 Bermondsey Street, S.E.
 WANDSWORTH, G. Nind, 6 Ringford Road, Wandsworth, S.W.
 DEPTFORD, Geo. Balls, 189 High Street, Deptford, S.E.
 LEWISHAM, W. P. Want, 19 Thornford Road, Lewisham, S.E.
 GREENWICH, A. J. Brown, 55 Trafalgar Road, Greenwich, S.E.
 WOOLWICH, Jno. Carter, 4 Melville Terrace, Woolwich.

Mr. HILLS and Mr. HAMPSON expressed in warm terms their appreciation of Mr. Allen's services in this matter, and in responding Mr. Allen said that he had been struck during his visitation with the fact that even in the extreme districts of London men were to be found who were still loyal to the Society, and were willing to give time to its service. At an early day, he hoped, these fifty-eight gentlemen would meet in conference for the purpose of sketching out the work which they could profitably undertake. He wished also to give expression to the fact that the secretary had done the lion's share of the work. In reply to Mr. Richardson the President explained that there were portions of London not included in the metropolitan divisions which were not represented, but an endeavour would be made to get these in time.

THE BUILDING SCHEME.

The secretary read the report of the Building Committee, deferred for consideration from last month. The main features of this are proposals (1) to pull down the houses Nos. 15 and 16 Bloomsbury Square, erecting on No. 15 a dwelling-house for letting, and on No. 16 a house for the Society's purposes. The latter will cost 3,500*l.* to 3,700*l.*, and the former 3,000*l.*; (2) from the ground floor of No. 16 a passage will be made to the new examination hall; and (3) a part of the present museum will be converted into a sitting-room, to be added to the secretary's residence.

The PRESIDENT, in moving the adoption of the report, said that he did not intend to say much. Part of the scheme was in the nature of a reinvestment of the funds now in "Goschens," and so far as that was concerned there would be no loss of annual revenue. The actual charge to the Society would be on account of the rebuilding of No. 16, and making an approach to the examination hall. When this was done they would have a united property of enhanced value. The annual charge to the Society on account of these matters was one which the Committee thought the Council could face. The question of the annual income of the Society during the next seven years was largely conjectural. The Committee was well acquainted with condition of the funds, and the proposals now submitted could be carried out. There were certain annual charges which he could not specifically refer to in public which would ere long fall in. As to the gloomy views regarding the Society which they often heard, and had heard twenty years ago, he would not pay too much heed to them. The fact remained that it would be very unadvisable not to make an approach to the house at the back; and it would be possible at any time to separate the buildings.

The discussion which followed was practically a

CROSS-EXAMINATION OF THE PRESIDENT.

The members kept their seats when they put questions to him, and Mr. Carteighe did not trouble to rise to his feet when he replied. It will simplify matters, therefore, to repeat the facts which the cross-examination elicited.

By Mr. ATKINS: The ground-rents owned by the Society, and worth over 5,500*l.*, will fall in in twenty years, and will then be worth four or five times what was paid for them.

By Mr. RICHARDSON: There are sixty-three years of the lease of the house, No. 17 Bloomsbury Square, to run, and Nos. 15 and 16 have been taken on a ninety years' lease. The museum will be extended by going upstairs to the old examination rooms. The addition to the secretary's house, instead of putting him into No. 15, was merely a question of finance. He will, no doubt, remove to the new house ultimately.

Mr. RICHARDSON remarked that it looked as if they were afraid of the position.

By Mr. EVANS: The Society has 13,000*l.* invested in Government stocks, 5,500*l.* in ground-rents, some prize-money funded, and the investment in the Edinburgh house. He could not say how far the receipts exceeded expenditure,

as it was difficult to get the average for late years, certain sums for fittings having been paid out of revenue—the fitting of the practical pharmacy laboratory, for instance.

By Dr. SYMES: That laboratory swallowed up 100*l.*

Mr. EVANS was of the opinion that they ought to have before them the figures regarding the amount of investments and annual receipts and charges. He did not think that money paid for fittings ought to be considered of the nature of investments. As to the ground-rents, he asked the President if he had taken into consideration that in all likelihood we should have legislation which would seriously affect ground values?

The PRESIDENT could not say anything about future legislation, all he would say was that the committee was satisfied that the financial position of the Society warranted them in going on with the scheme.

Mr. EVANS said that the President might think as he liked about ground-rent legislation, but it was a thing which would take place, and they could not afford to ignore it.

The PRESIDENT: Quite right, but in any legislation of this character the investments of benevolent bodies are generally protected.

By Mr. WATT: 3,000*l.* of the 13,000*l.* is the life-members' fund, so that 10,000*l.* is available for building purposes. The Society is compelled by the terms of the lease to rebuild.

By Dr. SYMES: The Council might get permission from the ground landlord to transfer the lease, but the committee did not think that necessary.

Dr. SYMES thought it advisable to take that contingency into consideration if the funds of the Society did not permit the completion of the scheme. The assessments of the Society when this house was completed would amount to 750*l.* a year, and the question was, was it judicious to embark upon this for the sake of getting an entrance to the back? There was another view of spending the Society's money. This house was not the Society; it consisted of the members throughout the country, and the money might better be spent for the general benefit of the members rather than on a house in London. He thought it might be prudent to get somebody to relieve them of the ground, as there was no saying how far they might now go. They would remember that when they embarked upon the whole scheme 10,000*l.* was said to be the limit of cost—4,000*l.* for the back and 6,000*l.* for the front. But the examination hall had cost over 10,000*l.*, and if the front buildings were to mount up in the same ratio it would take 17,500*l.* to cover them. (Laughter.) Was that possible?

The PRESIDENT did not think so. The statement to which Dr. Symes referred was the haphazard conjecture of one of the members.

Mr. ATKINS thought the carrying out of this work was necessary for the completion of the work already accomplished. The premises in Galen Place would fail in part if the scheme was not completed. 4,000*l.* only of the sum would be sunk, representing, perhaps, a decrease of 200*l.* a year in the income; there would also be a necessary charge for maintenance. Would the President say what would be their position as regards investments after all was done?

The PRESIDENT replied that 9,000*l.* would be invested [including the value of the house at No. 15], and 5,500*l.* in ground-rents. He repeated, in reply to Mr. Evans, that the committee had fully considered the future financial position.

Mr. MARTIN pointed out that last year's balance-sheet showed that 14,500*l.* was invested in stocks, but the President said 4,000*l.* of that had since been sold. Further, in reply to Mr. Martin, he stated that 6,700*l.* was the bare cost of the building. Structural alterations in No. 17 were not taken into account, nor were the fittings, which would cost an inconsiderable sum.

By Mr. WATT: The architects' fees were not included.

Mr. EVANS thought that they would all now realise the wisdom of Mr. Richardson's original suggestion that the scheme should not have been gone into until they had the whole thing before them. [Mr. Richardson made a statement later which showed that he is now entirely with the President in this matter, and has changed his mind.]

The PRESIDENT then endeavoured to close the discussion, by saying that there were various ways in which the Society could work for power, and he was of opinion that one of the best ways was by having a good establishment, so that they

might bring in people and show them their position. Did any one think that the men who backed the Pharmacy Bill would support them if they did not know that the Society was doing good work for education? Bringing such men in amongst them had done the Society good, and he maintained that the policy as a whole was sound. He hoped that a broad view of the matter would be taken by the Council, and that they would assent to the proposals. He could personally assure them from his long experience of the Society's work and his intimacy with its financial condition, that the committee—representing a third of the Council—was right.

The report was adopted, Mr. RICHARDSON remarking that it would have been a good thing for the Society if they had bought the Inns of Court Hotel when it was in the market, as the late Mr. John Williams had advised. Mr. WATT put in a word of caution as to exceeding the estimates. In the course of the discussion Mr. HAMPSON elicited that the present assessment of No. 17 Bloomsbury Square is 334*l.*, and of the examination hall 267*l.*. Amongst those who spoke in the discussion were Messrs. Cross, Gostling, and Robbins, the last named, as treasurer, seconding the adoption of the report.

The next business was the

REPORT OF THE RESEARCH COMMITTEE.

In this report the committee referred in an introductory note to the resolutions of the Council authorising their appointment. The Laboratory was to have a grant of 300*l.* a year for 1888, 1889, and 1890, with an additional 300*l.* to defray the expense of fitting up two rooms in the Galen Place building as laboratories, a third as a balance-room and store, and a fourth as a writing-room for the use of Professor Dunstan, the director, and the members of the committee. Work was commenced in a small room in the old building early in 1888 with two advanced students, and at the end of the first week in April the new laboratory was ready for occupation. The first paper resulting from the grant was on the preparation and properties of ethyl nitrite, by Messrs. Dunstan and Dymond. The laboratories accommodate six workers, exclusive of the director and his assistant. The committee had met the director once a month, discussing arrangements, and, in accordance with the resolution arrived at by the Council, invited and secured the co-operation of Professor Michael Foster, Dr. Lander Brunton, Professor Frankland, and Mr. Charles Ekin. After referring to the Laboratory regulations, which are designed to give the director and committee control of the work done, the report proceeded to state that during the year nine persons had been admitted as workers in the Laboratory, and several researches had been commenced. The work has mainly been on the nitrites of the paraffin series (ethyl nitrite and amyl nitrite), but some chemical observations on tartar emetic have also seen the light. On the nitrites there has also been some work done outside, in regard to the physiological and therapeutical sides, by Professors Cash and Leech and Dr. Lauder Brunton, which resulted in communications to the Society. The report then continues:—

"The grant of 300*l.* has, during the past year, been appropriated in the following manner: Payments to the director and demonstrator, 210*l.*; wages of porter, apparatus and materials, 75*l.*; leaving a balance of 10*l.* to be carried over to the working expenses of the present year.

"The actual results which have been gained during the past year have convinced the committee that the Society will be enabled to give, through this Laboratory, a considerable impetus to the advancement of pharmacology in this country. It is also clear that valuable work is being done from an educational point of view in training men who are likely to take prominent positions in pharmacy, in advanced experimental work, and in the methods of accurate research. Further, the Laboratory will prove to be of great value to those pharmacists and other persons who are anxious to engage in any pharmacological investigation.

"At the present time there are six workers in the Laboratory, and investigations are proceeding on similar lines to those which have already been published. Wherever it may seem necessary the committee hopes to be able to arrange for the performance elsewhere of conjoint physiological and therapeutical work, and by this means to do much towards furnishing a scientific basis to medicine and pharmacy."

The report was dated February 5, and was signed by

Michael Carteighe (president); Alex. Bottle (vice-president); Thomas Greenish, G. F. Schacht (members of Council); Michael Foster, E. Frankland, T. Lauder Brunton, and Charles Ekin (additional members of committee).

The PRESIDENT, in moving the adoption of this report, said that the educational advantages derived by those engaged in research had been even greater than the committee had anticipated. He called attention to the names of the additional members who had signed the report, and said that later on the committee might ask for powers to contribute some of the results of the work done in the Laboratory to the Chemical and Royal Societies, as this year it was expected that some of the work would be of a higher character than before.

Mr. GREENISH seconded the motion, and expressed the hope that the Society would ere long be in a position to offer some substantial reward to the students engaged in research.

Mr. BUTT (who was suffering from severe hoarseness) said that it was only his absence of voice which prevented him commenting fully on this report; but he had sufficient vocal power left to say that there was not one thing of the work done in the Laboratory with the exception of sweet spirits of nitre which was of importance to pharmacy. (Oh, oh!)

Dr. SYMES was decidedly in favour of research, and he would be sorry to follow Mr. Butt in his criticism, because he took it that in the first year they were only making a beginning, and that much time had been spent in organisation and selection of suitable subjects. When they had spent small sums on research before this Laboratory was opened, they had felt that the work done was not quite of the nature upon which the Pharmaceutical Society's money should be spent; it was scientific rather than pharmaceutical, and he hoped that the President's remarks were not to be taken as an indication that pharmaceutical research was to receive the go-by in favour of more advanced science. The Pharmaceutical Society's money should not be spent for the sake of bringing credit to individuals from scientific bodies, and for providing papers for the Royal Society. He hoped the committee would stick to pharmaceutical work—they had not done too much of that. What the members would ask regarding the Laboratory was, Is there anything done in it strictly pharmaceutical, anything that comes into a pharmacist's daily work? He would not, as he had said, judge by the first year's results, but he hoped that this matter would be carefully looked after in future. They did not want to pay for work so that the professor might get honour from any other society; they should not subsidise him for that, but for work which would benefit science, and pharmacy in particular. (Hear, hear.)

The PRESIDENT thought Dr. Symes had misunderstood his remarks. In a certain portion of the pharmacological work done in the Laboratory they were assisted by eminent therapeutists, such as Dr. Cash, who might desire to communicate their results to the Royal Society, and it was in such circumstances that they wished to go along with the therapeutists. At the same time the results would be communicated to the Society's journal also. The motion was then put and carried, Mr. Butt only voting against it.

OTHER BUSINESS.

The annual meeting was fixed for Wednesday, May 15, and the drafting of the annual report was referred to the Library, &c., Committee. Mr. Evans had a motion on the agenda to the effect that the members should be supplied on the mornings of the Council meetings with copies of the Finance Committee's report. The President suggested that this should be agreed to without discussion, and this course was adopted. Then followed a passage of arms between Dr. Symes and the President regarding the fees of a candidate, who had failed to present himself for examination owing to illness. The dispute rested on an interpretation of a by-law. Dr. Symes interprets this in a different way from the President and solicitor, and he thought he was as much entitled to do that as the President was to examine candidates contrary to other people's interpretation of the by-law controlling that matter. The President replied, confining himself to the assertion that it is impossible to get friends of plucked candidates to sympathise with the examiners' conduct in the matter. This done, the Council received the report of the General Purposes Committee *in camera*, and this was all the business.

PHARMACY ACTS AMENDMENT] BILL.

A BILL entitled the Pharmacy Acts Amendment Bill was read a first time in the House of Commons on March 1. The following is the text of the Bill as proposed:—

A BILL

TO AMEND THE PHARMACY ACT, 1852, THE PHARMACY ACT, 1868, AND THE PHARMACY ACT (1868) AMENDMENT ACT, 1869.

Be it enacted by the Queen's most excellent Majesty, by and with the advice and consent of Lords Spiritual and Temporal, and Commons, in this present Parliament assembled, and by the authority of the same, as follows:—

1. The powers of the Pharmacy Act, 1852, of the Pharmacy Act, 1868, and of the Pharmacy Act (1868) Amendment Act, 1869, with respect to examinations required for obtaining certificates of qualification under the said Acts, or either of them, shall be extended so as to allow of the division of the said examinations into preliminary and other parts of the same; also to allow of or require periods of time and courses of instruction between any of the said parts; and to require that persons presenting themselves for the final part of an examination shall have deposited with the registrar under the said Acts certificates of their having duly attended courses of instruction in chemistry, botany, and materia medica, and having for not less than three years in the whole served in the open shops of chemists and druggists, or in public hospitals or dispensaries as apprentices or pupils of chemists and druggists qualified in accordance with the law of the country in which they are carrying on business to dispense the prescriptions of persons legally qualified to practise medicine in that country.

2. It shall be lawful for the Pharmaceutical Society of Great Britain from time to time, by byelaws duly confirmed by the Privy Council, to regulate the said division of examinations and also the said periods of time and study between any of the said parts, also to allow and provide for and to regulate the reception of certificates issued by other examining bodies in lieu of or so as to satisfy the examiners in lieu of the preliminary part of any examination, also to provide for and to regulate the courses of instruction in chemistry, botany, and materia medica to be duly attended as aforesaid, also to provide for and to regulate the forms of certificates to be for any purpose of this Act deposited with the said registrar, and also to provide for and to regulate the notices to be given and fees to be paid by persons intending to present themselves for examination in any part of an examination or desiring any registration under the said Acts or either of them.

3. This Act shall not extend to Ireland.

4. This Act may be cited for all purposes as the Pharmacy Acts Amendment Act, 1889, and shall be construed as one with the Pharmacy Act, 1852, the Pharmacy Act, 1868, and the Pharmacy Act (1868) Amendment Act, 1869, and shall come into operation on the first day of January one thousand eight hundred and ninety, for the purpose of making byelaws, but no byelaw for the purposes authorised by this Act shall come into operation prior to the first day of January one thousand eight hundred and ninety-four.

FRENCH PHARMACEUTICAL NEWS.

(From our Paris Correspondent.)

THE PARIS SOCIETY OF PHARMACY has postponed its March meeting to Wednesday next (March 13).

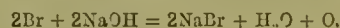
TUNISIAN EXPORTS.—Henceforth the following articles will be allowed to be exported free of export dues, namely, almonds, lemons, dried figs, henna, boney, pistacios, and dry raisins.

SEASON TICKETS FOR THE EXHIBITION.—An official notice just published sets forth that season tickets will be issued at 100f. to the public, and 26f. to members of committees. Applicants are to give two of their photographs, carte size, one of which will be returned with the receipt on

its back, and will form the admission ticket. Foreigners may send the money to the Minister of Finances, "Caisse centrale du Trésor, by post-office order, in a registered letter, together with two of their photos, and 5*fr.* extra for revenue stamp and return postage. They will receive by mail a receipt, against which, on coming to Paris, they will be handed their admission ticket. Members of committees must add official documents establishing their position.

CRITICISMS OF THE MUNICIPAL LABORATORY.—Much dissatisfaction is expressed with our municipal council's pet institution, which opposition papers call a huge political machine. It appears to be the fact that analysts, otherwise competent, have been there refused employment on political grounds. Some dealers, deeming themselves unjustly treated, have been setting traps for the laboratory. Specimens of the same wine and pepper were sent for analysis under different labels and by different persons, and contradictory reports obtained from the chemists, who declared some good, some bad, and some indifferent, some pure, and some adulterated. It is charged that worse than ignorance or carelessness is at the bottom of the affair, and rich developments are promised.

EASY PROCESS FOR OXYGEN.—Dr. G. Denigès, of the Bordeaux Pharmaceutical Society, has proposed for preparing oxygen a ready method, which may not answer for operations on the industrial scale, but will possibly be found convenient in a pharmacist's modest laboratory. The process is as follows:—In an 8-oz. matrass introduce 40 c.c. of soap-makers' soda-lye, as much water, and 2 or 3 c.c. of a concentrated solution of cupric sulphate. The cupric oxide at first precipitated is re-dissolved in the excess of alkali. The blue liquor is now heated to ebullition, and the matrass, on being removed from the fire, is closed with a cork provided with two glass tubes. One is for letting out the gas, and the other, having a glass cock, contains 10 c.c. of bromine. On causing the metalloid to come down drop by drop into the blue liquor a continuous stream of oxygen will be evolved, easily regulated by means of the bromine cock. Near the end of the operation, should the liquid become too cool, it may be necessary to heat it gently to 60° or 80° C., which is the most convenient temperature for the operation. The following represents the reaction:—



The cupric oxide takes no direct part in the chemical changes, but acts in the same way as cobalt and nickel oxides are known to do with hypochlorites, namely, owing to simple presence. Ten c.c. of bromine, weighing 29 grammes, will, with the foregoing process, afford about 1,800 c.c. of oxygen, or nearly nine-tenths of the theoretical quantity.

THE FORMATION OF HALOS.—M. Cornu, at the Academy of Sciences' sitting of March 4, showed by a neat and simple experiment the cause of solar and lunar halos. Two glass plates were cemented on an appropriate frame, so as to form a sort of large and very flat bottle, into which a saturated solution of potassic alum was introduced, and an excess of strong alcohol added. Very fine crystals of alum are thus precipitated, and on shaking the mixture and looking through it at a lighted candle three distinct concentric halos are seen, gradually changing to two, which appear exactly at the angles observed in the natural phenomenon. The varying appearance of the whole, through the gradually clearing mixture, very closely recalls the different aspects of halos. They have long been attributed to the presence of fine particles of ice in the higher regions of our atmosphere, but the demonstration now leaves nothing to be desired.

STILL HARPING ON GERMAN ALCOHOL.—The bugbear of cheap alcohol continues to frighten French manufacturers. One of their organs was remarking the other day that, while French colonies have in Parliament ten representatives who vote taxes and military laws applied only to the mother country, the metropolis has given up the right of interfering with the colonial fiscal system. The consequence is that colonies treat all imports alike, and subject all products to an *impôt de mer* (sea-tax), which is detrimental to French manufacturers. Colonial productions on the contrary pay in France lower customs duties, and the result is that Martinique, for instance, sends yearly to France eighteen million litres (nearly four million gallons) of tafia and rum, chiefly made

with German potato alcohol, and imports them into the country on privileged terms. This is scarcely fair towards the poor French distiller.

PLEASE SEND US STROPHANTHUS SEEDS.—At a recent meeting of the Paris Hospitals Medical Society Dr. Bucquoy informed his fellow-members that the hospital commission on new remedies had decided, on the motion of the pharmacist-in-chief, that henceforth no strophanthus shall be supplied in hospitals, and all orders therefore shall remain unfilled. The reasons brought forward by the pharmacist-in-chief, and found sufficient by the commission, are the following:—First, strophanthus seeds are not in the market, and cannot be procured; next, the seeds used for the pharmaceutical preparations belong to various ill-defined species; and, lastly, the drug is expensive. Besides, it is a new remedy still under trial, and the hospital service's business is not to supply stuff for experiments. To the foregoing Dr. Bucquoy retorted that strophanthus seeds are abundant in the London market, and belong almost exclusively to the *S. Kombe* variety. As to the price, since 100 grammes of extract will make 100,000 pills, the medicine is not expensive, even should it cost 200f. He contended also that the drug has passed the experimental stage, and advised his colleagues to keep on prescribing strophanthus extract pills, so as to compel the hospital commission to procure the medicament. Dr. Lailier substantially agreed with the foregoing, only he was of opinion that the seeds, not the extract, should be procured, and the preparation be made at the hospitals' Pharmacie Centrale.

GERMAN PHARMACEUTICAL NEWS.

(From our Berlin Correspondent.)

DIACHYLON WOUND-PLASTER, consisting of emplastrum plumbi mixed with boric acid and starch powder, is a new addition to the antiseptic preparations recently introduced into use here. It is claimed to be one of the best powders for nursery use, as well as for excessive perspiration of the feet, &c.

THE IMPERIAL PHARMACOPŒIA COMMISSION is to meet either at the end of April or the beginning of May. The various subjects which are under the care of special members must be reported upon and the results sent in by April 1 as bases for discussion. Consequently we may expect in the near future another edition of the commission's work.

PROFESSOR DR. BARDELEBEN celebrated recently his seventieth birthday, an event which was made an occasion for giving him a great ovation. Since 1868 he has been head of the well-known surgical "Charité" clinic in Berlin, and during this period has performed more than three thousand operations. A large number of congratulatory messages were showered upon him, a great number coming from English medical men.

THE SCHERING COMPANY.—Some excitement occurred on the Berlin Bourse last week in connection with the shares of the chemical factory, "Vormals Schering." These have always been regarded as a very favourite investment in consequence of the high dividend they always brought in. But last week these shares fell 25 per cent. in one day, and only began to recover after several days. It is now stated that for 1888 the dividend will be only 18 per cent., instead of 24 per cent. as was expected. The fall is said to be due to some mistake in stocktaking, which has led to its overestimation.

THE TITLE "APOTHEKER."—Some time since the police decided that it should not be allowed for anyone, even if he had passed his examination as an "apotheker," to use that title in any way for trade purposes, *i.e.* to use it as a firm style—as, for instance, "H. Smith, apotheker"—while unpossessed of a licence or concession, but carrying on such a business as that of a drysalter or the like. The minister has now decided that not only shall it be illegal to attempt to delude the public into the idea that one is licensed in this way, but that also it shall be forbidden to use the title of "candidate of pharmacy," if it seems likely that it may lead people to regard the business as a proper dispensary.

MEDICAL TREATMENT IN THE TROPICS.—In the Oriental Society Mr. Dauber, M.D., read a very interesting paper on "Medical Treatment in Tropical Countries," and he offered the suggestion that in Berlin an institution should be established specially for the training of medical men whose practice will be situate in the tropics. Only by such a means does he think it possible for medical men to acquire all the information necessary for the treatment of disease in such countries, where, he points out, the conditions are in many respects very different to those which obtain in temperate climates.

TREATMENT OF PHTHISIS BY HOT AIR.—When Dr. Weigert published his results in the treatment of phthisis by inhalation of hot dry air, a good deal of scepticism was excited in the scientific world, and Weigert was not able to bring the details of his cases before the Medical Society, to which he had intended to communicate them. Professor Kohlshütter, of Halle, read a paper the other day before a medical society, in which he confirmed the theoretical exactness of Weigert's announcement by stating that air heated to 350° F. could be inhaled by phthisical patients without any bad effects, while the influence of the inhalations on the tubercle bacillus seemed to be really destructive. The professor considers that the treatment is worthy of serious examination—a testimony which created no small sensation among his audience.

VALUE OF METALS.—Gold and silver are always regarded as the noble metals of greatest value, but although chemistry has made very considerable progress, some of the newer metals cost much larger sums of money to produce than does gold or silver. One kilogramme of gold is now worth about 2,920s., and the same quantity of silver, 175s. But 1,000 grammes of vanadium costs not less than 100,000s.; of stibidinum, 80,000s.; of lithium, which may be regarded as the lightest of the known metals, 62,000s. Calcium, which in the combined state is so abundant and so cheap, cannot be isolated under an expense of 40,000s. a kilo., and palladium, 12,300s. Iridium, which is the heaviest element of its class, costs at present about 9,600s. a kilo. That such expensive materials find any use at all technically is strange, but true, as may be instanced by reference to the use of palladium in watchmaking, and of iridium in the manufacture of gold and other nibs.

THE SPEICHERT POISONING CASE.—No legal case has afforded so much matter for discussion as the Speichert arsenic-poisoning case. I may remind the readers of THE CHEMIST AND DRUGGIST that Speichert was a German apotheker who is still undergoing a sentence of penal servitude for life on a charge of poisoning his wife with arsenic. The conviction was based upon the detection of this element in the remains of the deceased. An attempt was made to frame an appeal against the judgment, but it was quashed. Professor Rammelsburg said a few days since, in a lecture on organic chemistry in the University, that with regard to Hofmann's analysis he could only repeat what that chemist himself said before the German Chemical Society, that, although the bones of the woman did give evidence of the presence of arsenic, so also did the wood of the coffin, the clothing of the body, and the churchyard soil; further, the same poison was found in the dress of Professor Hofmann's own wife! Rammelsburg, with the greater number of forensic experts, is convinced that with regard to Speichert a miscarriage of justice occurred. The *Pharm. Zeit.* says, regarding the words "miscarriage of justice" ("Justizmord"), that Privy Councillor Rammelsburg used the expression before all his students, and that it is a very significant one to employ. Further, from legal reasons it is not an expression which ought to be used in Germany.

SIMPLE DRYING OILS.—According to Castelhaz, oils prepared with mangause oxalate may be advantageously substituted for drying oils in all their applications by reason of beauty and other properties. From 2 to 5 per cent. of mangause is sufficient for boiling oils. The mangause salt is first ground up with 1 or 2 parts of the oil to be boiled, and this mixture is added very gradually to the bulk of the oil, stirring well. The oil is heated very gradually at first, but after the escape of the gases it may be boiled in the ordinary manner.—*Chem. News.*

EDINBURGH CHEMISTS' ASSISTANTS' AND APPRENTICES' ASSOCIATION.

AN open meeting was held on February 20 at 36 York Place, Mr. Coull, president, in the chair. Mr. J. G. Wilson contributed the first paper, on

EASTON'S SYRUP.

The writer first gave the results of an examination of commercial samples, taking the Unofficial Formulary syrup as the standard.

Quinine Phosphate per fluid ounce		Strychnine per fluid ounce		Ferrous Phosphate per fluid ounce		Phosphoric Acid per fluid ounce	
Grains		Grains		Grains		Grains	
B.P.C. standard	6.0		.25		8.0		50
A	5.75		.25		7.1		47
B	5.75		.25		7.5		45
C	5.25		.25		6.4		48
D	4.25		.25		5.0		31
E	2.0		.10		5.0		26

It was pointed out that it is not possible to have more than 7.7 grains of ferric phosphate in each ounce, as every 20 oz. contain only 19 oz. and 2 fluid drachms of B.P. syrup of phosphate of iron. Regarding the deposit frequently found in this syrup, which is generally considered to be quinine, the author disagreed with the statement of MacEwan; he had found quinine as well as ferric phosphate in the deposit. Cripps has found crystals of quinine in a syrup of quinine hydrobromate, and Stark has shown crystals which had deposited from a strong acid solution of quinine sulphate. These facts, he thought, disproved MacEwan's statement, that "quinine salts, once in solution, are not such tender things as to change their character and become insoluble by mere exposure to atmospheric influence."

The author further considered that the B.P.C. formula could not very well be improved upon, but where large quantities of the syrup are made at a time its keeping qualities may be improved by the addition of 2 drachms of diluted hydrochloric acid to the pint.

The next paper was on

TINCTURE OF OPIUM,

and was contributed by Mr. J. H. Hoseason, who had examined a number of samples of tincture found in trade. The results were as follows:—

—	Specific Gravity	Absolute Alcohol per cent. by weight	Grains Residue per fluid ounce	Grains Morphine per fluid ounce
1 ..	.964	38	18.5	3.5
2 ..	.952	40	17.0	3.0
3 ..	.942	41	20.5	6.0
4 ..	.940	42	14.5	2.0
5 ..	.962	36	15.3	2.0
6 ..	.960	37	17.3	3.0
7 ..	.961	37	15.3	2.0
8 ..	.966	35	13.5	2.5
9 ..	.961	38	14.6	2.7
10 ..	.946	40	18.0	3.0
Average	.955	38.4	16.4	2.8

The pharmacopœial process for making the tincture was discussed, and the author believed that samples 4, 5, and 7 were weak, not on account of weakness of the official process, but because moist opium had been used. Nevertheless, he believed the old Edinburgh Pharmacopœia process, in which the opium was boiled in the water for some time, is better than the B.P. method; but better than all, he thought, was the method for making the tincture which he proposed—viz., from the standardised extract of opium. This may be done by dissolving $\frac{3}{4}$ oz. of extract in the water, adding the requisite quantity of spirit, allowing to stand twelve hours, and filtering. This forms a good dark-coloured tincture. A

curious fact came to light while calculating the respective costs of tinctures prepared by the official process and from the extract. Good dry opium costs about 1s. per oz., and the tincture made from it costs 3s. 4d. per pint. Extract of opium costs 1s. 8d. per oz., and tincture made from it 3s. 1d. per pint. Thus the wholesale houses appear to have the trouble of making the extract, and yet sell it at a cheaper price than the crude opium from which it is obtained. Another method for making the tincture is to make a strong liquor from the crude opium, estimate the morphine in this, and dilute it with the proper quantity of menstruum to form a tincture of the standard strength. By adopting either of these means the tincture would be less liable to the variations at present prevailing. The author commented fully upon the different factors given in the above table.

Following this a report on the botanical excursions by Mr. Thomas Conley and a note on extracts by Mr. C. A. Macpherson were read. The latter was critical as regards the Pharmacopœia directions. It partly reiterated the statements made by Mr. F. W. Fletcher in reference to the prodigal waste of spirituous menstruum, but it was pointed out that the consistency of many of the extracts is not what it should be. There is no reason, said the author, why with patient study and intelligent investigation processes should not be devised which shall yield preparations less liable to variation than those at present official.

B.P. TEST FOR BISMUTH CITRATE.

The Pharmacopœia states that "on strongly heating citrate of bismuth it chars, and on ignition yields a residue for the most part black, but with a yellow surface." Mr. Donald McEwan has looked into this matter, and has found that part of the bismuth salt is reduced to the metallic state owing to the influence of the carbon derived from the citric radicle. He was of opinion that the free carbon at first formed deoxidises the bismuth oxide, Bi_2O_3 , and reduces it to the metallic state. Metallic bismuth, as is well known, oxidises at a red heat, and so the final result is a mixture of the metal and bismuth oxide, which is not black, but grey.

A GALLIC ACID MIXTURE.

In the next note, contributed by Mr. G. Melvin, the following prescription came under comment:—

Glycerin. acid. gallic.	..	..	..	3j.
Acid. sulph. dil.	..	..	..	3ij.
Ext. ergotæ liq.	..	..	..	3ss.
Aq. cinnamomi ad	..	..	..	3viii.

Misce.

This formed a perfectly bright mixture, but in the course of a day or two there was a large separation of gallic acid. It had also been dispensed clear, and permanently so. A little investigation showed that when glycerine of gallic acid is made carefully at as low a temperature as possible, it always gives the separation in the above case; but it was noted that when a portion of a freshly-prepared sample of glycerin. acid. gallic. was heated to 340°F . for about five minutes, bubbles of carbon dioxide were given off, and the gallic acid was evidently changing into pyrogallol. On using this overheated sample to make the mixture, there was only a very slight separation of crystals even after exposure to a temperature of 20°F . This is owing to the change of the gallic acid to pyrogallol. It is possible that a change similar to this takes place in the glycerine on long keeping, as it was observed that the mixture made with old glycerine of gallic acid remained clear. Mr. Melvin had failed experimentally to corroborate Squire's statement that part of the acid separates from the glycerine on cooling.

In a second note by the same writer the discovery of metallic lead in commercial citric acid was recorded. The last paper read was by Mr. A. Russell Bennet on

A SAMPLE OF EUONYMIN.

Mr. Bennet stated that a preliminary examination showed that this sample of green euonymin contained 50 per cent. of lycopodium. This probably accounted also for the presence of fixed oil, which caused the sample to give an oily stain to the paper in which it had been wrapped. The colouring matter was of a very deep bluish-green tint, and looked like chlorophyll, but he could not say definitely what it was. The sample yielded only 2 per cent. of ash.

LONDON CHAMBER OF COMMERCE.

ANNUAL MEETING OF THE CHEMICAL TRADE SECTION.

THE annual meeting of the Chemical Trade section of the Chamber of Commerce, which had been postponed from February 25, for which date it was first convened, was held at the offices of the Chamber in Eastcheap on Tuesday, March 5, at 2 P.M.

The Chairman, Mr. Thomas Tyrer (of the firm of Messrs. May & Baker), presided, and among those present were:—Messrs. A. H. Allen, Geo. W. Arnott, Thos. Bennett, Wm. J. Blagdon, S. B. Boulton, Thos. Christy, C. G. Clarke, Walter S. Crook, R. H. Davies, Bernard Dyer, D. Greenhough, A. B. Hill, N. R. King, Hugo Lorentz, C. Macadam, T. P. Morson, John Moss, C. E. R. Newlands, J. C. Preston, G. Pugh, J. G. A. Roberts, J. Rottney, Fred Shaw, Geo. Stacey, J. M. Steel, Wm. Thorp, Charles Umney, E. W. Völcker, Thos. Whiffen, and Charles Wightman.

The minutes of the preceding committee having been read and adopted,

The CHAIRMAN delivered his annual address. He proposed, he said, to briefly review the work done by the section during the year. Before entering upon this subject, however, he desired to express the deep regret which all felt at the loss of Mr. John Williams. Personally Mr. Williams was known intimately to some present, and by them he was not only honoured but also loved. He may not have answered all modern notions prevailing in these times of fierce competition, but he held fast to sound business principles. He expected a fair profit for what he sold, and he never allowed any considerations to interfere with the reputation of his firm's products. He was a cautious and trusted adviser, and as a scientist, the loss by his death was a considerable one. With regard to the work accomplished, the Chairman said the section was founded in 1883, and one of the first matters which engaged its attention was the question of uniformity of analysis of manures. The section conferred on this matter with the Society of Chemical Industry and the Society of Public Analysts, and was subsequently represented at a conference at Burlington House. The result of that conference was that the public analysts as a body were proved to be beyond reproach, and the conclusion arrived at was that the sampling was the crucial point. Another question of importance which had been dealt with arose out of complaints of the quality of certain pharmaceutical articles exported to South America. Inquiries instituted into this matter by the sub-section interested showed that the trouble arose through the authorities in the country in question insisting that the drugs should answer the requirements of the French Codex and the German Pharmacopœia. But the efforts of the committee resulted in convincing the South American authorities of the excellence of British goods, and in the goods fulfilling the requirements of the British Pharmacopœia being passed thenceforth on equal terms with Continental products.

SEVERAL DIFFICULT QUESTIONS.

At the beginning of the present Chairman's year of office several difficult questions were ripe for consideration. One was the question of drawing samples of goods in bond, and in regard to that, after some negotiations the section was able to obtain a simplification of the Customs regulations bearing upon this subject. The second point which came up for discussion was in connection with the Poisons Bill, and it was then resolved, on the motion of Mr. Greenhough, to oppose the clause which would compel shippers to affix poison-labels to all packets and packages of poisonous substances exported by them. There had also been the question of fire-insurance rates. Upon consideration it was resolved to take no collective action in this matter, the opinion being freely expressed that fire insurance companies are very difficult people to deal with, and the experience of the trade pointing to the fact that in every case when notice of re-survey had been given the druggists had come off second-best. One result, however, of the decision arrived at, had been that his firm (May & Baker), and at least one other house, had adopted a system of personal insurance. Sums of money, representing the premiums payable, were set aside annually and allowed to accumulate, and the most ample precautions

against fire were taken in the works. His firm did not regret the adoption of the personal insurance system, and he was inclined to think that if it were followed on a wider scale the insurance companies would soon be brought to a more reasonable frame of mind.

COMMERCIAL MUSEUM.

A fourth question which had been considered was the proposed commercial museum (in connection with the Imperial Institute); and the section, with regard to this proposal, unanimously agreed that the proposed museum, in order to be of any benefit to the commercial community, should be situated within the City boundaries. In how far this representation has led to any result he could not say.

COMMERCIAL EDUCATION

had also been considered. A scheme had been prepared by the Chamber as a body, and was incorporated in a supplement to a recent issue of the *Chamber of Commerce Journal*, in which a curriculum was recommended for the schools suited to the wants of the present day. If the standard laid down in that scheme was rather too high, he was fully convinced it would be a mistake to lower it, as the recommendations made had been arrived at after a thorough and ample consideration of the requirements of the commercial classes of this city.

MERCHANDISE MARKS ACT.

The Merchandise Marks Act was a measure as to the value of which there is a wide divergence of opinion; the Chairman would refer gentlemen interested to some articles on the working of the Act which were published in *THE CHEMIST AND DRUGGIST* last autumn, and he had no doubt that after a careful study of those admirable articles they would agree with him that the working of that Act is by no means an unmixed blessing to the drug and chemical trades. The authorities appeared to proceed on the belief that everyone was attempting to trade by fraud. If such were really the case, no precautionary measures on the part of the authorities could be too strong; but he was certain that the firms who trade in this manner are few and far between, and so far as the drug trade was concerned, he could see no reason for the absurd stringency of the authorities. The writer of the articles in *THE CHEMIST AND DRUGGIST* had made the calculation that, if the Act continued to be worked in the same manner as it was then, about 2,500,000*l.* worth of merchandise would be interfered with in a year, which would, of course, be a very serious matter for the national trade.

A question of great immediate interest was that of the

PROPOSED NEW RAILWAY RATES.

The Chairman said he was glad to be able to announce that the Chemical Trade section would hold a meeting there next Tuesday to discuss this question. Mr. W. H. Francis (Hearon, Squire & Francis) had made a special study of this subject, and, in conjunction with Mr. Umney, had collected facts and data, which would show the points to be specially protested against. The new classification was a remarkable muddle. The railway companies had put into the same category such articles as copper, worth about 40*l.* per ton, and certain disinfectants, which are only worth so many shillings; they had placed nitrate of copper along with nitrate of lead, oblivious of the entirely different properties of these substances. In addition to a protest against an increase of the rates, attention should be directed to obtain a more common-sense classification of goods. The section had here an unique opportunity to render an incalculable service to merchants at large, for, being scientific men, they could, better perhaps than any other body, judge of the different properties of goods. There was good authority for saying that the increase in rates on druggists' goods under the new tariff would be from 25 to 40 per cent.—an extra outlay which, he thought, the wholesale trade would not be able to recover from their customers. He would suggest that the present is an opportune time for trying to reverse that policy adopted some years ago to pay carriage on small parcels of goods sent to retailers. It is all very well to pay the carriage on heavy wholesale quantities, where the freight per ton can be calculated beforehand, and added to the cost; but competition is so severe nowadays that they could not afford to give away anything, especially on small retail orders.

DRAWBACK ON TINCTURES, &C.

The principal work during the year had been, no doubt, the movement to obtain a drawback on alcoholic medicinal preparations. Their experience had shown that the ideas which are, or had been, current here and there as regards the inaccessibility, the supposed indisposition to alter rules once made, and the alleged tendency to blindly oppose British interests of the Somerset House authorities were totally and radically unfounded. Nothing, in fact, could exceed the courtesy and openness of mind with which the Somerset House people had received their suggestions. The history of the spirit drawback was well known to the trade; he need not, therefore, dilate upon it. To make matters clear, it was only necessary now to state that last November a general order of the Inland Revenue Department was published in the trade papers, and copies of it were in the possession of several firms. By that order important concessions were granted on the export of certain medicinal preparations. Among the concessions, druggists were allowed to make the tinctures on their own premises, even though they kept on their premises, sold and used in certain processes, methylated spirit. The rules of the Excise department were very strict in relation to the use of methylated and duty-paid spirit on the same premises and at the same time. There had been numerous serious instances of the necessity of this strictness, and therefore the concession made by the authorities was a very great one. But further, druggists were exempted from inspection until the preparations were actually bottled, and it was besides allowed to put the goods in pint bottles, and the latter in cases equal to 5 bulk gallons, instead of, as under the compounding licence, limiting the minimum to 9 bulk gallons, and the shipment to casks only. Having put up the goods, the druggists had only to give notice, and the officer would come, draw samples, and seal the package, which might then—another great concession—be carried to the ship in the most convenient and cheapest manner, instead of having to be taken on board in bond. The concessions originally made were therefore considerable; so much so, in fact, that several traders declared that nothing further was required. He was therefore surprised, at the time when the concession was put to the test, to hear the opinion expressed that it would not be worth while to take advantage of it until further concessions had been made. And it showed the good feeling of the authorities that, instead of closing, as they might have done, the door to further negotiations, they at once assented to consider further suggestions. These had been drafted, submitted, and discussed, and he had the gratification to state that every one of those suggestions had been approved of and adopted.

The Chairman then read a letter which had been received from the Board intimating that they intended, with as little delay as possible, to make several changes in the regulations relating to the exportation of medicinal spirits on drawback, and to extend the list of articles in the schedule to the general order of November 26 last; and they trusted that the alterations would give satisfaction to the London Chamber of Commerce, and facilitate the exporting business of the trade generally. He had expected to obtain for that meeting a draft copy of the amended regulations, but had just heard that it had not come from the printers; but the meeting might take it from him that all that had been asked for had been practically granted. The effect would be that the druggist would be able, as before, to prepare medicinal alcoholic preparations in his own warehouse. The minimum quantity allowed to be shipped had, however, been reduced to 2 gallons, and the preparations, instead of having to be put, as under the old order, in bottles of at least 1 pint, might now be put up in bottles of 1 gill as the minimum size, and any multiples of gill bottles, or any other size bottles, which in their aggregate contents could be equally divided into 2-gallon quantities, will be passed in future. The lists of preparations which might be exported under the new order had been very largely extended, and would include several more preparations of the 1885 Pharmacopœia, certain preparations of the 1867 Pharmacopœia, of the Pharm. Lond., of the French Codex, the Russian and German Pharmacopœias, the British Pharmaceutical Conference formulae, and Martindale's Extra Pharmacopœia, and generally private preparations of which the formulae are known. Then a long list of fluid extracts had been added. A schedule would be

added to the new order about to be issued, which would include the additional preparations which upon exportation would be subject to the drawback of 10s. per gallon for alcohol duty—plus 4d. per gallon under the compounder's licence—and also to the allowance of 4 per cent. for estimated loss of spirit in manufacture. But, in addition to this list, the 10s. 4d. drawback could be claimed on any other alcoholic medicinal preparation answering the proof spirit standard, but allowance would not be made on such preparations for waste. He had also been assured that the draft of the extended order should be submitted for consideration and further suggestion to the sub-committee of the section, who will be entitled to criticise it, and ask for further improvement, if they thought fit. He wished further to add a few words as to the services which had been rendered by gentlemen who had acted on this spirit committee, and of which it would be impossible to speak too highly. He had never known men prepared to discuss in a more open-minded manner, and with such absence of jealousy, and animated by a wish for the general good, matters pertaining to their own business, which it might well have been expected they would rather not have made known to fellow-manufacturers. In this connection it was right to specially mention the name of Mr. Chas. Umney, who had freely placed at their disposal his extensive knowledge and experience of the trade, and who, on behalf of his firm, had also with great liberality allowed the Inland Revenue authorities to make unrestricted use of his laboratory for the purpose of conducting their experiments. The authorities had taken nothing for granted, but had put all their claims to every test they could think of before admitting them, and if any of them should think that their benevolent-looking friend, Dr. Bell, did not know where he was in this matter, let them just try to take that gentleman in. Dr. Bell had all along been animated solely by the desire to be fair and just to all parties, and now that the matter had been virtually settled, he might say that if later on the authorities should become suspicious that any of the firms taking advantage of this order were performing antics which might be mildly termed dishonourable, the result to the trade as a body would be nothing short of disastrous. He wished also to mention Mr. R. H. Davies, of the Apothecaries' Hall, as having been specially referred to on this matter, and as having furnished advice of a most valuable character.

THE MANUFACTURE OF CAFFEINE.

There was one other matter which had been prominently before the section; it was the manufacture of caffeine. In connection with that the name of Mr. Thomas Christy should be mentioned in the most honourable manner. It occurred to Mr. Christy that the best way in which to prove his patriotism would be to try and advance some British trade interest, and so he turned his attention to the question of tea refuse. He thought it a mischievous and improper thing that the Customs, by insisting upon levying a 6d. duty on tea not worth 1½d., should virtually make the foreigner a present of what could be used in this country, and he therefore approached the authorities with that determination and directness of manner which are his characteristics. And he had the satisfaction of gaining his point with commendable celerity. Mr. Christy might easily have made this a personal matter and kept all the credit to himself, instead of which he, with great liberality, gave the honour of obtaining the concession to the Chamber. A committee, consisting of Messrs. Tyrer, Morson, Christy, Howard, and Whiffen, was appointed to attend to the matter, but, in point of fact, the negotiations were left in the hands of the three last-named, and after the rejection of petroleum and lime as denaturants, asafœtida was finally agreed upon by all parties as a satisfactory means of rendering the tea unfit for human use. The result of the duty-free admission of the tea thus denatured is that two eminent English manufacturers are now actively engaged in making caffeine in this country. The Chairman concluded his remarks by a complimentary reference to the officials of the Chamber.

The second item on the agenda was the consideration of the spirit question, but this having been virtually disposed of in the speech of the Chairman, Mr. Tyrer only mentioned that as soon as the order was issued he would

apply for half a dozen copies, which he would send by post to members of the sub-committees.

SUB-SECTIONS AND OFFICERS.

The next business of the meeting was the renewal of one-third of the committees of the section. Mr. Blagden then read out the following names of gentlemen who, it was suggested, should form the committees for the ensuing year:—

Analytical Chemists' Sub-section: Messrs. R. H. Davies, B. Dyer, F. A. Manning, Otto Hehner, Boverton Redwood, and H. R. Smith.

Chemical Manufacturers' Sub-section: Messrs. T. Bennett, Boulton, C. A. Gosnell, A. Horny, David Howard, C. T. McAdam, Rudolph Messell, Jas. Robbins, J. M. Steel, Thos. Tyrer, and Thos. Whiffen.

Chemical Merchants and Brokers' Sub-section: W. G. Blagden, W. Caudery, C. Christopherson, W. J. Crook, R. A. Fairclough, D. W. Greenhough, G. Pugh, and Charles Wightman.

Drysalts and Druggists' Sub-sections: A. Baiss, Thos. Christy, G. B. Francis, A. B. Hill, John Moss, T. P. Morson, Alfred Preston, F. Shaw, Charles Umney, and E. A. Webb.

Upon the motion of Mr. D. W. Greenhough, it was decided to adopt *en bloc* the lists of names suggested. This having been done,

Mr. W. G. BLAGDEN said that they were now to proceed to the election of a chairman for the ensuing year. He thought they would all agree that the section had accomplished a large amount of good work, the bulk of which had been done under the chairmanships of Messrs David Howard and Thos. Tyrer. He did not know whether Mr. Tyrer would be willing to take upon himself the position of chairman for another year, but if he could be prevailed upon to do so, he was sure that no one better could be found. He had, therefore, pleasure in proposing that Mr. Tyrer be re-elected chairman of the section for the ensuing year. The motion was seconded by Mr. Umney, and carried unanimously.

Mr. THOS. TYRER, in returning thanks, said Mr. Blagden had spoken kindly of his work, but he wanted the members to consider that as chairman he could do nothing unless he was enthusiastically supported by his colleagues. In this respect he had been exceedingly fortunate so far, and hoped that the same would continue to be the case. After a few observations with regard to certain new ideas which were now maturing in his brain for the practical benefit of the chemical and drug trades, Mr. Tyrer concluded by proposing the re-election of Mr. W. G. Blagden as deputy-chairman. This motion having been seconded by Mr. D. W. Greenhough and unanimously carried, Mr. Blagden suitably replied, and the proceedings terminated.

We have reason to believe that the General Order referred to in the chairman's address, and which will be issued almost immediately, will be substantially as follows:—

GENERAL ORDER.

INLAND REVENUE OFFICE,
SOMERSET HOUSE,
LONDON, W.C. }

March, 1889.

The Board, having had under further consideration the conditions prescribed by the General Order of November 26 last, under which certain tinctures, liniments, and medicinal spirits (hereinafter referred to as "tinctures") may be exported, and repayment allowed of the duty on the spirits estimated to be lost in the manufacture of such tinctures, &c.:—

ORDERED,

1. That the tinctures be allowed to be packed in cases containing two or more complete bulk gallons, instead of five as heretofore.

2. The size of the bottles containing the tinctures may range from a quarter of a pint to half a gallon, instead of from one pint to half a gallon, as heretofore, and the bottles may contain any of the following quantities viz.:— $\frac{1}{4}$ pint, 1 pint, 2 pints, or 4 pints.

3. The form No. 111-4 is to be revised by the addition of

a column in which the actual alcoholic strength of the tinctures in terms of proof is to be entered by the rectifier or compounder exporting them. A corresponding additional column is also to be added in the officer's book. It should be stated on forms No. 111-4 whether bond has been given for the due exportation of the Tinctures, what is the place of destination, and what the value of the goods. The forms sent to the Customs should be addressed to the Collector of Customs. An abstract of the despatch (form 100-6) is to be sent by the officer to "The Principal of the Statistical Department, Custom House, London."

4. One sample out of every ten, or fraction of ten kinds of Tinctures prepared at each of the two initial strengths, is, as a rule, to be taken by the officer, instead of a sample of each kind as heretofore. A larger proportion of samples may, however, be taken should the officer, in his discretion, consider it necessary. The quantity taken for a sample is in future to be one gill.

5. If on examination of a sample at the laboratory the strength is found to vary by not more than two degrees from that declared by the rectifier or compounder, the declaration will be regarded as correct, and drawback, &c., allowed accordingly.

6. If the strength found be less than that declared by more than two degrees, a deduction to the extent of the difference and a further deduction of one degree is to be made in calculating the proof quantities of all the tinctures of the same initial strength in the consignment, but if the difference amounts to five degrees, double that difference is to be deducted from the laboratory strength in calculating the proof quantity.

7. In future, medicinal tinctures of every sort may be exported, in cases of a minimum size of two gallons, under the provisions of the General Order of November 26, 1888, as now amended, but tinctures not included in the list appended to that Order, or in the supplementary list issued herewith, will be entitled to drawback and the allowance of 4d. per gallon only, but not to the special allowance for waste granted in respect of tinctures included in those lists.

8. A list of the additional tinctures in respect of which the special allowance at the rate of 4 per cent. for waste may be granted, in addition to the drawback and allowance given on the exportation of ordinary compounds, is annexed hereto.

By the Board,

ALBERT MICKS.

Additional schedule of tinctures, liniments, or medicinal spirits in respect of which the special allowance of 4 per cent. for waste may be granted, under the provisions of the General Order of November 26, 1888, as now amended.

BRIT. PHARM., 1885.

Ext. Cimicifuge
" Cocœ
" Rhamni Frangulæ
" Sarsæ
" Taraxaci
Spirit. Ammon. Fœtid.
" Armoraciæ

BRIT. PHARM., 1867.

Tinct. Castor
" Cinchon. Flav.

PHARM. LOND.

Tinct. Aloes Co. (1851, Ph. Lond.)
" Rhei Co., 1851
Spirit. Ammon. Comp., 1836

PHARM. EDINBRO'.

Tinct. Cuspariæ

FRENCH CODEX.

Tinct. Colchici Corm.

RUSSIAN PHARM.

Tinct. Maticæ

PRUSSIAN PHARM.

Tinct. Colocynth.

BRIT. PHARM. CONFERENCE FORMULÆ.

Tinct. Calendulæ
" Coto
" Convallariæ
" Eucalypti
" Euonymi
" Bryoniæ
" Capsici Fort.
" Ergotæ Ammon.
" Hydrastis
" Prun. Virg.
" Hamamelidis
" Benzoin.
" Strophanthi
" Erythrophœi
Lin. Opil Ammon.

UNOFFICIAL FORMULÆ.

Tinct. Aconit. Fleming
" Agaric
" Alstoniæ
" Ammoniac.
" Anacardiæ
" Anthemid.
" Boldo
" Caneliæ
" Cascariæ
" Condurango
" Delphinii

Tinct. Eriodyctionis
 „ Galbani
 „ Guaiaci
 „ Guaranae
 „ Hellebor. Nigr.
 „ Iguatiae
 „ Ipecac.
 „ Moschi
 „ Myrrh. et Borac.
 „ Pulsatillae
 „ Quillaiae
 „ Cort. Limonis Rec. Fort.
 „ „ Aurant
 „ Quebrach.
 „ Yauillae
 „ Warburgii
 „ Coccae
 „ Koromiko
 Balsam Peru

FLUID EXTRACTS.

Aconiti
 Arnicae
 Belladonnae
 Buchu
 Calendulae
 Calumba
 Castanea
 Cannabis Indicae
 Capsici
 Chimaphilae
 Cibiratae
 Ciuchonae Flav.
 Colchici Rad.
 Colocynthis
 Conii Fruct.
 Cornus Florid.
 Cnbebrae
 Cypripedii
 Digitalis

Dulcamarae
 Eucalypti
 Euonymi
 Gelsemii
 Gentianae
 Grindeliae Robustae
 Guaranae
 Hamamelidis
 Haematoxyli
 Hydrastis
 Hyoscyami
 Ipecacuanhae
 Juglandis
 Krameriae
 Leptandrae
 Lupuli
 Maticae
 Nucis Vomicae
 Podophylli
 Pruni Virginianae
 Quassiae
 Rhei
 Rubi
 Rumicis
 Sanguinariae Canadensis
 Stramonii Sem.
 Scillae
 Scutellariae
 Senegae
 Sennae
 Serpentariae
 Spigeliae
 Stillingiae Comp. (as McDade's)
 Stillingiae Sylvaticae
 Taraxaci
 Tritici repentis
 Uvae ursi
 Valerianae
 Veratri viridis
 Zingiberis

EXTRACTS FROM THE REGISTER OF DEEDS OF ARRANGEMENT.

The following deeds of arrangement with creditors have been filed at the Bills of Sale Office, under the provisions of the Deeds of Arrangement Act, 1887. Some of these deeds are for the purpose of carrying out compositions with creditors (and such are specified below), but the great majority of them are "assignments" in the ordinary form, to a trustee or trustees, for the benefit of creditors. The Act referred to expressly provides that registration shall not give validity to any deed which is an act of bankruptcy, and there is no provision, in the Act, making any of these arrangements binding upon dissenting creditors.

Cox, Edwin Joseph, Greenhithe, chemist. Trustee: G. White, 14 Old Jewry Chambers, London, E.C., C.A., with a committee of inspection. Date, February 25; filed, March 4; unsecured liabilities, 204*l.*; estimated net assets, 298*l.* No amounts given in schedule of creditors.

Nicholson, Samuel, Market Place, Fakenham, but now staying at Goole, Yorkshire, chemist and druggist. Trustee: Joseph D. Smith, Norwich, wholesale chemist. Date, February 23; filed, March 1; unsecured liabilities, 559*l.* 6*s.* 2*d.*; estimated net assets, 792*l.* 10*s.*; creditors fully secured, 607*l.* 10*s.*

	£	s.	d.
Dakin & Co., Norwich	56	0	0
Maw, S., Son & Co., London .. .	28	0	0
Hill, D. J., Norwich	40	0	0
Leggett, —, Goole	100	0	0
Bennett, —, Norwich	25	0	0
Baiss Brothers & Co., London .. .	20	0	0
Staw, Thompson & Co., Hull .. .	37	0	0
Churchman, —, Ipswich	38	0	0
Sutton, Wm., & Co., London .. .	26	0	0
Smith & Sons, Norwich	76	0	0
Norwich Mercury, Norwich .. .	10	0	0

DEODORISING IODOFORM.—By inverting a menthol cone over a 1-oz. w. m. vial partly filled with iodoform, and holding it in place by a broad rubber band (thus forming a stopper), the odour will be entirely masked in from one to two hours. Miss Laura Goodman is our authority for this; she communicates to the *Pharmaceutical Era*.

Gazette.

PARTNERSHIPS DISSOLVED.

Burnard, Lack & Alger and **Burnard & Alger**, Plymouth, chemical manufacturers, metal extractors, wharfingers, warehousemen, and merchants; as far as regards C. F. Burnard.

Clare, W., & Stacey, H. G., Leeds, physicians and surgeons.

Wood & Bedford, Leeds, manufacturing chemists; as far as regards J. Bedford.

Worship & Young, Sevenoaks, surgeons.

THE BANKRUPTCY ACT, 1883.

RECEIVING ORDERS.

Harris, Moss, Blackpool, formerly of Southport and Liverpool, dentist and artificial teeth manufacturer.

McConnal, Alan, Appleby, chemist.

ADJUDICATIONS.

Harris, Moss, Blackpool, formerly of Southport and Liverpool, dentist and artificial teeth manufacturer.

McConnal, Alan, Appleby, chemist.

Newton, George, Newcastle-on-Tyne, surgeon.

NOTICES OF DIVIDENDS.

Leaney, Alfred George, Tisbury, Wiltshire, veterinary surgeon—first and final div. of 2*s.* 6*d.*, March 4, Official Receiver's offices, Salisbury.

Shaw, Thomas, late of the Hydropathic Establishment, Colwyn Bay, physician and surgeon—second and final div. of 10*d.*, March 11, Crypt Chambers, Chester.

APPLICATIONS FOR DEBTORS' DISCHARGE.

Barnes, Lawrence Robert (trading as Barnes & Co.), York, chemist and druggist—April 9, Guildhall, York.

Moorhouse, Edward Dobson, Hulme, Manchester, and Timperley, Cheshire, surgeon—April 13, Manchester.

ORDERS MADE ON APPLICATIONS FOR DISCHARGE.

Cook, Augustus, Eastbourne, dental surgeon—discharge suspended for three calendar months.

Palmer, Thomas William Gascoigne, Cheltenham, dental surgeon—discharge suspended for six weeks.

Ross, Arthur, Jun., Swanmead, Bermoundsey, size and gelatine maker, trading with I. & H. Cripps as Cripps, Ross & Co.—discharge suspended for three weeks.

FIRST MEETINGS AND PUBLIC EXAMINATIONS.

Phillips, John Philip, Staveley, Derbyshire, chemist and druggist—March 9, Angel Hotel, Chesterfield; April 3, County Court, Chesterfield.

Tillotson, Septimus Brown, Habergham, near Burnley, late of Darwen, chemist—March 19, County Court-house, Blackburn; Mar. 19, County Court-house, Blackburn.

Wilding, William Arthur, Arthur Road and Tollington Road, Holloway, late of Church Stretton, Shropshire, physician and surgeon—March 8, Law Society's rooms, Shrewsbury; March 8, County Court office, Shrewsbury.

THE irrepressible candidate's reply to the question, What do you understand by physics, electricity, and magnetism? was "Physics is pills and things; electricity is the telegraph wires; magnetism is what you take in connection with rhubarb."

THE rights of Mr. Richardson, lately proprietor of the Richardson Drug Company, St. Louis, Ill., having been bought by Mayers Brothers, a new company has been formed by the principal employes of the late company with a capital of \$250,000. The new concern is called the Moffitt-West Drug Company. John S. Moffitt, formerly a stockholder in the Richardson Drug Company and manager of their sundries department, is its president; D. P. Daugherty, vice-president and drug buyer; Courtney West, secretary and treasurer; John Cronch, manager of drug department; and Frank T. Koenecke, manager of the city department. They have secured premises at 114 and 116 Walnut Street, adjoining the Cotton Exchange of St. Louis.

Legal Reports.

THE NAME OF WARNER.

IN the Chancery Division of the High Court of Justice, on Friday, March 1, before Mr. Justice Stirling, the case of Warner v. Warner was heard. This was an action to restrain the defendant from selling, or offering for sale, any medical preparations, not of the plaintiffs' manufacture, as the goods of the plaintiffs, by the use of the words "Warner," or "Warner's cure," or "Warner's great cure," or any other colourable imitation of the plaintiffs' registered words, "Warner's safe cure," and the present was an application for interim injunction pending the trial of the action. The plaintiffs are H. W. Warner & Co., 86 Clerkenwell Road, London, proprietors of the medical preparations advertised and sold by them under the description of "Warner's safe remedies," such as "Warner's safe nerve," "Warner's safe rheumatic cure," &c. The defendant is Mr. Warner, carrying on business in Chancery Lane, who acquired last year the business of Mr. Ashton, the proprietor of what were formerly designated "Ashton's great cures," e.g., "Ashton's great asthma cure," "Ashton's great gout cure," &c.

Mr. Graham Hastings, Q.C., in moving for an interim injunction on behalf of the plaintiffs, said that this was one of those cases in which a gentleman rejoicing in the same name as the plaintiffs had bought up the business of another man in the same line as the plaintiffs, in this case, "Ashton's great cure," and immediately converted it into "Warner's great cure," because he liked the pleasure, which he was entitled to in the ordinary way, of trading under his own name. But it was very remarkable that when certain compounds had been sold for some time under one name, this gentleman should buy up the business, he himself having, he (Mr. Hastings) thought, been formerly in another line altogether. He contended that the defendant could not do this for any other purpose than to get the benefit of the fame which the plaintiffs' business had secured. The learned counsel then read the evidence as given in the affidavits. Upon these affidavits it was stated that the plaintiffs in 1869 introduced their "safe" remedies, and had spent over 1,000,000*l.* in advertising them, besides circulating five millions of circulars and millions of pamphlets. Some of the deponents declared that they believed the labels and descriptions used by the defendant were of such a character as to lead the public to imagine that his goods were those of the plaintiffs. The defendant, in his affidavit in reply, said he had altered Ashton's labels, circulars, advertisements, &c., only by removing the name "Ashton" and substituting his own name of "Warner" and by dropping the word "great." He further declared that he had not changed the name with the view of passing off his preparations as those of the plaintiffs, but because he preferred to use his own name to designate preparations made by himself. He also denied that when he executed an order sent by letter (spoken to in the affidavits for the plaintiffs) which asked for "Warner's safe cure," the customer in question intended that he should be supplied with the plaintiffs' preparation. Mr. Hastings concluded by contending that on the evidence it was clear that the defendant thought he might get the benefit of the plaintiffs' advertising, he having bought "Ashton's cure," by removing Ashton's name and substituting his own, thereby calling it "Warner's cure."

Mr. Henry Terrell, counsel for the defendant, maintained that the plaintiffs must not only say that his client deceived the public, but that there was fraudulent intention on his part. The defendant's own name was Warner. He purchased—and it was not suggested with any fraudulent intention—the business of Mr. Ashton, manufacturer of "Ashton's great cures," and he then carried on that business in his own name.

His Lordship: It is a curious thing that this business, having been Ashton's before, and these cures having been advertised, and having presumably gained a reputation as Ashton's, the defendant should see fit, not to do what he did in the first place, advertise them as Ashton's and put his own name at the foot as "Warner, successor to Ashton"—nobody could have any objection to that—but to change the designation of the whole thing, and advertise them as "Warner's cures." Why did he do that?

Mr. Terrell: Because he desired to carry on the business in his own name, and to extend and advertise it; and unless the court finds that he did so with the intention to deceive, I submit that he cannot be restrained.

His Lordship: Why did he answer letters which asked for "Warner's safe cure"?

Mr. Terrell: Because it was evident that the persons who wrote those letters were not desirous of having the plaintiffs' cures, but wanted the defendant's, because they referred to the defendant's advertisements; they wrote to his address in Chancery Lane, and they wrote for "cures" which they said were advertised at 2*s.* 9*d.* a bottle, the defendant being the only one who sold them at that price. The smallest bottle the plaintiffs manufactured was 4*s.* 6*d.*

His Lordship: That is a thing likely to attract purchasers.

Mr. Terrell: Yes, to our cure; but we are perfectly justified in selling our cures in bottles of any size, and at any price we like. We make that an attraction, and are perfectly justified in doing so; and when persons yield to that attraction, and write for these 2*s.* 9*d.* cures, they must intend ours and not the plaintiffs', who have no such cures. In every respect we have taken care not to do anything which would lead a purchaser to believe that he was buying the plaintiffs' preparations. Our packages and bottles cannot be mistaken for those of the plaintiffs, and our advertisements are wholly different. Continuing, the learned counsel argued that in the absence of fraud the court could not restrain the defendant from making and selling his medical preparations as "Warner's," and that the suspicion that in changing the name after acquiring Ashton's business he had intent to defraud was mere suspicion, and not evidence.

His Lordship here read the letter which had been referred to. It asked for "Warner's safe cure as per advertisement, for which I enclose 2*s.* 9*d.* I paid 4*s.* 6*d.* before," &c.

Mr. Terrell said that the defendant also made 4*s.* 6*d.* bottles. His Lordship would see on the advertisement that the defendant sold at 2*s.* 9*d.*, 4*s.* 6*d.*, and 1*l.* a bottle. The circulars on the bottles defendant received were "Ashton's great rheumatic cure," and the advertisement on those circulars showed 2*s.* 9*d.*, 4*s.* 6*d.*, and 1*l.* a bottle.

His Lordship: The advertisement proved against you on the affidavits does not show anything of the kind. It is of a most suspicious nature.

Mr. Terrell said that the advertisement to which his Lordship referred related to trial bottles at 2*s.* 9*d.*; but he would refer his Lordship to other advertisements and to the circulars to show that they had sold, and did sell—for they were Ashton's circulars—bottles at 2*s.* 9*d.*, 4*s.* 6*d.*, and 1*l.* Now the plaintiff sold nothing but the 4*s.* 6*d.* bottle, so that when a person wrote and pointedly referred to the advertisement of 2*s.* 9*d.* a bottle, and wrote to his address at Chancery Lane, the defendant was entitled to think it was his own preparation that was asked for.

His Lordship said he would make this suggestion to Mr. Terrell. What was proved against him was the use of the advertisement in this vague form, and the answering of applications for "cures" designated as "safe." Would he undertake until the trial of the action to discontinue the advertisement in this or any similar form, and not to execute orders for cures applied for under the designation of "safe"?

Mr. Terrell: With regard to the word "safe" yes; but with great deference, with regard to the advertisement, that goes to the essence of our title. If we cannot advertise "Warner's asthma cure" and "Warner's rheumatic cure"—

His Lordship: I cannot prohibit the use of "Warner," but those advertisements are so framed as, to my mind, to induce people who formerly used the plaintiffs' goods to come to you because you sell cheap.

Mr. Hastings said he understood that the defendant had also dropped out the word "great" without any explanation, and retained simply the words "Warner's cures."

Mr. Terrell replied that he was quite willing to use the word "great" in all his advertisements and labels.

His Lordship then gave his decision upon the application. He said that in this case he thought he must leave the defendant to frame his advertisements in such a way that they would not mislead the public, as he thought the present advertisement did. The law was laid down in the case of

Burgess v. Burgess, and from that judgment he did not wish to depart. After briefly reciting the facts as related upon the affidavits, his Lordship went on to say that if the defendant had continued to trade as "Warner, successor to Ashton," no objection could have been raised. But he had thought fit to change the designation of the medicines, and to sell them under his own name. The defendant was perfectly well aware that those preparations of the plaintiffs were in the market, and known as "Warner's cures" and "Warner's safe cures." Yet, how did he advertise? He issued an advertisement in which he said, "Warner's asthma cure. This is a permanent cure," &c. "Trial bottle, 2s. 9d." Now it appeared that the plaintiffs' bottles were 4s. 6d.; and, that advertisement being seen, people would immediately suppose that the cure they formerly got from the plaintiffs, for which they formerly paid the higher price, was now to be got at a lower price. The reference in the letter which had been produced to the fact that the customer formerly paid 4s. 6d. a bottle was sufficient to have called the defendant's attention to this, that the person dealing with him might be taken to be inquiring for another article. Instead of honestly saying that he did not sell "Warner's safe rheumatic medicine," defendant wrote back and said it was only lately that he had commenced the sale at the smaller price. The inference to be drawn from that was that the defendant was not really honestly advertising these medicines under his own name—they had been previously known as Ashton's medicines—with a view to acquiring reputation on his own behalf, but in order to acquire a portion of the reputation acquired by the plaintiffs. He thought, therefore, that the defendant ought to be restrained from selling or advertising his preparations so as in any way to represent to or lead the public to believe that the preparations sold by him were those manufactured by the plaintiffs.

Injunction granted accordingly, and his Lordship further ordered that the costs of this application should be costs in the action.

COMPANY EXPENSES.—DUKE v. SENIOR.

In this action, which came before Baron Pollock on Monday, the plaintiff, an accountant in the City, claimed 110% as money advanced and paid on the defendant's behalf. The case for the plaintiff was that he and a Mr. Sims arranged to assist Mr. Senior in bringing out a company for the manufacture of a farinaceous food. The amount for which the action was brought was paid towards preliminary expenses, the defendant undertaking to be personally responsible. This Mr. Senior denied, and said that the agreement was that Mr. Duke should look to the company for repayment of the money. His Lordship gave judgment for the defendant.

COMMITTAL OF A MANUFACTURING CHEMIST.

AN instance of the difficulties under which some manufacturing chemists labour came to light on Saturday in the City of London Court, of which Mr. Commissioner Kerr is the president, in the action of Joyce v. Arnott. The plaintiff brought the proceedings before the court for the defendant, Mr. George W. Arnott, manufacturing chemist, of 7 Fenchurch Buildings, E.C., to show cause why he should not be committed to Holloway Gaol for the non-payment to the plaintiff of the sum of 62% for which judgment had been recovered. Mr. W. Greig appeared in support of the summons, while the defendant appeared in person to show cause. He said he was in partnership at 7 Fenchurch Buildings, where he and his partner traded as manufacturing chemists. Their manufactory was at Rainham, Essex. They were not doing a large business by any means, although it was true they employed eight or ten hands. Mr. Commissioner Kerr inquired of the defendant if he employed ten men why he did not pay this debt first, and the defendant replied that he had not been making enough money to pay with, or these proceedings would never have come about. Mr. Commissioner Kerr asked further if the defendant was embarrassed with any other liabilities, and he said his debts amounted to about 150% inclusive of this debt in respect of which he was now summoned. Mr. Greig desired to put the court in possession of the fact that he thought this was a hard case.

The defendant was the lessee of certain premises, and the plaintiff was the sub-lessee. Although the plaintiff paid his rent to the defendant, the defendant did not pay it over. The superior landlord then distrained upon the plaintiff's goods, and these proceedings were then brought. Mr. Commissioner Kerr suggested the advisability of taking the lease under a *fi. fa.*, but Mr. Greig said there was no value in it now as it had run out, and the plaintiff was now the direct tenant of the superior landlord. The defendant had expensive offices. The defendant said that was not so. His profits for last year did not amount to more than 200%. The learned Commissioner said he observed the plaintiff got judgment against the defendant as long ago as March, 1888. His principle was that if a man employed other people he should pay his debts first. He must, therefore, order the defendant's committal to Holloway Gaol for forty days. The defendant could become a bankrupt if he liked. Mr. Greig asked for costs. Mr. Commissioner Kerr refused the application, and said the plaintiff had got over 2% interest for the money due. Interest corrupted society. He could not give costs. An order was accordingly made for the committal of the defendant to Holloway Prison for forty days without costs.

ACCEPTING A CHEQUE.

In the City of London Court on March 1, before Mr. Commissioner Kerr, the case of Rose v. Dusseck was heard. The proceedings were instituted by Messrs. Rose, Wilson & Rose, of 31 Threadneedle Street, City, to recover 2% 8s. 7d., the balance of an account for the supply of fifty barrels of resin which had been delivered to the order of the defendant, Mr. Alexander Louis Dusseck, manufacturing chemist, of Verney Road, Canal Bridge, Old Kent Road, S.E. Mr. Steward appeared for the plaintiffs, and spoke to the goods having been supplied. The defendant refused to pay the balance now sued for because the goods supplied were of a very inferior description to those ordered. They deducted the amount now sued for to repay them for the goods not being according to those ordered. They sent a cheque for 26% odd for the amount, less the 2% 8s. 7d., in settlement of the account, which the plaintiffs had accepted. Mr. Steward said the amount was sent for them to accept in settlement if they could. If they could not do so, then the dispute was to be referred to arbitration. They had asked for an arbitrator to be mentioned, but the defendant would not agree to that being done. The contract to purchase contained a clause which provided for the dispute being arbitrated upon. The learned Commissioner: You did not return the cheque. Mr. Steward said they did not accept it in settlement. The learned Commissioner: But you must either accept it with the conditions or send it back. I must enter a non-suit. A non-suit was then entered for the defendants, costs allowed.

BANKRUPTCY REPORT.

Re J. J. W. ALLEN, 14 England Lane, Belsize Park, Chemist.

THIS debtor applied to Mr. Registrar Giffard at the London Bankruptcy Court on Wednesday for approval to a scheme of arrangement providing for the payment of the preferential debts and costs in full, and a composition of 3s. 4d. in the pound to the unsecured creditors. Mr. Aldridge read the Official Receiver's report, from which it appeared that the debtor filed his own petition on December 19 last, and that there were liabilities of 593% 19s. 8d. expected to rank against assets valued at 179% 7s. 5d. after deducting 40% 1s. 4d. in respect of preferential claims. The report further stated that 3s. 4d. in the pound was a larger dividend than would result to the creditors under bankruptcy, and therefore the proposal was reasonable and calculated to benefit the general body of creditors. The debtor succeeded to the chemist's business on the death of his father in May, 1882, when the business was about solvent, and he attributed his failure to his liability as surety for 200% on accommodation bills given to his brother. It was further reported that the debtor had not kept sufficient books to disclose his transactions or financial position. This being the only offence charged in the report, and there being no opposition, the approval of the Court to the scheme was granted.

TRADE **"SANITAS"** MARK.
DISINFECTANTS

(FLUIDS, POWDER, SOAPS),
 NON-POISONOUS, PLEASANT, AND BEST.
 Gold Medals, Calcutta 1884, Paris 1885, Antwerp 1886, Ostend 1888.

KINGZETT'S BACTERICIDES
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THE "SANITAS" COMPANY, LIMITED,
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To secure the best Hungarian Aperient Water,

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Sold by the

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Of all Druggists and Mineral Water Dealers. [2]

SHOW CARDS, 24×17 or 17×12,
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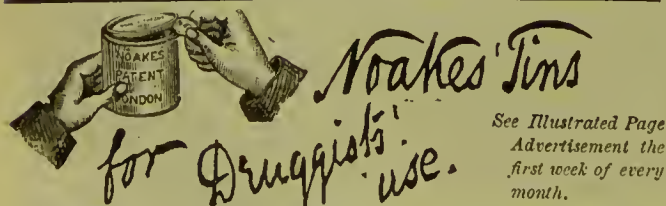


See First Page in the First Issue of this Month
 for latest particulars.

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ESSENCE, EXTRACT,
 JUJUBES, SOAP,
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MUMFORD'S
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PURE CRUSHED LINSEED IS NOW
17/- cwt. CARRIAGE PAID

TO ANY RAILWAY STATION IN ENGLAND, AND HALF TO
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GLYCERINE & CUCUMBER,

Unsurpassed in appearance and effect, 9d. per lb.,

BY USING

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In Jars (free), 1 lb. 2s. 6d.; 1 lb. 4s. 3d. net.

Making respectively 3 lbs. and 6 lbs., costing 1d. per oz., by the simple addition
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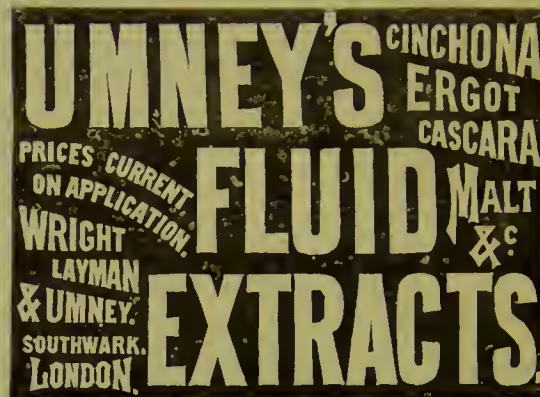
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ROUSE & CO., 12 Wigmore Street, & 37 Berners Street
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Cucumber and Glycerine in Bulk, 10d. per lb.

Bottles, attractively packed, 2 oz. 3s.; 3 oz. 3s. 9d.; 4 oz. 4s. 6d. per doz.

Chemists and Perfumers should no longer sell any inferior article made from
 Cucumber Pomade (so called), which is usually rancid or preparations containing
 Borax and Alkalies, which, by entirely removing the fatty secretions natural to the
 skin, must, if their use be continued, completely ruin the complexion.



[1]

SILICATED CARBON FILTERS

AERATED

PATENT MOVABLE BLOCK.

See Advertisement, page 15 (bottom folio).

Fletcher's
Concentrated Liquors

See DIARY, 1889,
 Pages 17 and 18.

EDITORIAL NOTES.

THE RAILWAY RATES BILL.

A STRONG opinion is developing in the wholesale drug trade
 to the effect that energetic and prompt measures should be
 taken to lay before the Board of Trade the special grounds
 which exist for opposing the proposals of the railway com-
 panies so far as these relate to ordinary drugs and chemicals.
 On behalf of the chemical section of the London Chamber
 of Commerce, Messrs. W. H. Francis (Hearon, Squire &
 Francis) and Charles Umney (Wright, Layman & Umney)
 have closely analysed the companies' classifications, and
 have compared the suggested tariffs with the existing ones.
 From statements by these gentlemen which have been fur-
 nished to us, it appears pretty certain that the railway com-
 panies, expecting that they will certainly have to reduce
 some of the charges which have particularly offended the
 public, such as those for the carriage of fruit, meat, and
 manufactures of home production, have conceived the
 idea of recouping themselves at the expense of trades

with more scattered interests, and which have less chance of securing public sympathy. Classification is the first grievance. As we stated last week, all the companies have agreed on a new classification, though on what scientific principle this is based no one has yet discovered. It is shown that a large number of drugs, chemicals, and drysalteries are specifically promoted from their previous classes to higher ones. The only reverse case in the whole category of goods which can be described as drugs, chemicals, or drysalteries is the curious one of tamarinds, which is reduced from Class 4 to Class 2. Honey goes up from Class 3 to Class 4; so do citric and tartaric acids, and lac; glycerine, gums, mustard, &c., are similarly advanced from Class 2 to Class 3; and, most important of all, "drugs in hampers, cases, or crates" are promoted from the 4th to the 5th class. As an illustration of the effect of the changes, we here show in juxtaposition the existing maximum rates and the proposed ones of one of the companies, which will fairly represent the rest, though there are variations. Taking the London & North-Western Company as the representative one, their maximum rates per ton per mile will be found to compare thus:—

Present Rates			Proposed Rates			
First 50 Miles	Beyond	Class	First 20 Miles	Next 20 Miles	Next 20 Miles	Beyond
<i>d.</i>	<i>d.</i>		<i>d.</i>	<i>d.</i>	<i>d.</i>	<i>d.</i>
3	2½	3	3½	3½	3	2½
3	2½	4	4	3½	3½	3
3½	3	5	5	4½	4	3½

To the new rates, moreover, terminal charges are to be added, and for "smalls"—that is, consignments under 5 cwt.—the company wants to charge double the maximum rates for conveyance and double the terminal charges of the 5th class.

Mr. Francis has worked out some actual instances of the possible effect the new scheme, if authorised, may have on the drug trade. He first supposes a hamper of drugs weighing 2 cwt. 1 qr. 3 lbs. to be sent from London to Manchester—186 miles. Worked out as per present scale the maximum total charge the company could demand for carriage would be 6s. 1d.; by their new scheme the London & North-Western Railway Company would have power to charge 15s. 5d., and extra for carting and delivery. This would be under the "smalls" rate. Supposing several hampers sent in one consignment to Manchester, the weight being, say, 5 cwt. 1 qr., so as to come under the tonnage rates, the present maximum charge would be 11s. 10d.; the new one would authorise a charge of 18s. 2d. plus a further charge for cartage and delivery.

It is not at all likely that the companies would go for their maximum rates at once; the process would probably be a very gradual one; but the power asked for is a very dangerous one to entrust to such soulless corporations as railway companies, and the specimen facts quoted are quite strong enough to show that it is of the highest importance that representatives of the drug trade should be delegated to present their case to the Board of Trade with the least possible delay. With this object in view a meeting of the wholesale trade is convened for Tuesday next, March 12, at 2 P.M. at the offices of the London Chamber of Commerce, Botolph House, Eastcheap, to express an opinion on the matter. It ought to be an influential meeting, and it ought to be in earnest, so that its delegates can speak to the Board of Trade with the assurance that they represent the unanimous opinion and the resolute resistance of the whole trade

to proposals which are evidently unfair and may become seriously oppressive.

OLIVE OIL.

TRADITION tells us that there are two classes of olive oil, viz. the table oils, and those that are fabricated. In pharmacy we have been accustomed to three kinds: "subline," "opt.," and "extra-sub." All this is now changed, and the question, What is olive oil? is almost as vexing to pharmacists as that other one, What is truth? has been to philosophers. Thanks to the Sale of Food and Drugs Act, we are slowly learning that the olive oil of modern times has a similar origin to nineteenth-century lard, namely the cotton seed of America. For some years now the olive-oil industry of the South of France and Italy has been in a low state; crops have been bad, the demand great, and prices high. In these circumstances the old and easily-detected adulterants—sesame, rape, and other seed oils—would have had an enhanced value; but the necessity for using up the immense quantities of cotton-seed oil produced in the United States brought that oil into request, and now we scarcely need the United States Consul at Marseilles to tell us that over 2,000,000 gallons of cotton-seed oil are exported from the United States to Marseilles every year, and that more than half of this is used for adulterating olive oil, a large part of which is exported to the United States with a 30-per-cent. import duty. The same thing went on in Italy until it was stopped by law; we also know that in the United States itself cotton-seed oil has almost entirely replaced olive oil as a table oil, and there is scarcely a restaurant in London in which the new salad oil has not taken the place of the old Lucca product. It is only within the past twelve months, however, that the oil has figured prominently in our law courts, and lately prosecutions appear to have reached an acute stage, for chemists equally with grocers have figured as defendants, and it is time for the trade to give the matter greater attention than they have done. The adulteration of olive oil with cotton-seed oil is not a new thing; it had reached gigantic proportions when Bechi devised his silver test seven years ago, and it has gone on increasingly since, so that it is now scarcely possible to get Florence oil in basket bottles which is not a mixture. All such that have been the subject of prosecution have been found to be adulterated, and chemists can conscientiously avoid the sale of those old-fashioned basket bottles. Equal suspicion may be shown towards the lower qualities of olive oil. The time is past when 3s. or 4s. will purchase a gallon of genuine olive. We should not care to purchase an article at 5s. without guarantee, and even the finest oil should not be stocked until it has been proved by tests to be above suspicion. Happily the presence of seed oils, and especially cotton-seed oil, in olive oil is easily proved, although the British Pharmacopœia is silent about the matter. Mr. Courroy some years ago proved the reliability of the following simple test, and its value has been corroborated by Mr. Wm. Gilmonr and others:—

Mix thoroughly 1 part of strong nitric acid, sp. gr. 1.42, with 9 parts of the oil to be tested, and pour the mixture into a white porcelain dish capable of holding at least 10 times the quantity. Apply heat gently, until the action between the acid and the oil is fairly set up, then remove the source of heat, and stir with a glass rod until the action is over. Pure olive oil thus treated and allowed to cool sets into a straw-coloured hard mass in an hour or two, while cotton-seed oil and other seed oils assume a deep orange-red colour, and do not set like olive oil.

Bechi's test, which depends upon the reduction of nitrate of silver by the seed oil, is an admirable one, but not nearly

so easily applied as this simple test of Mr. Conroy's. Several forms of Beechi's test have appeared, but the following is the simplest:—

Make a solution of nitrate of silver by dissolving 1 gramme of nitrate of silver in its own weight of water, and adding absolute alcohol to make 100 c.c. Five c.c. of the oil are to be mixed with 25 c.c. of absolute alcohol, 5 c.c. of the silver nitrate solution added, and the whole heated to 84° C. If the oil contains cotton-seed oil the mixture becomes of a brown colour, owing to the reduction of the silver salt.

This test is very delicate, but as the nitric-acid test detects between 5 and 10 per cent. of cotton-seed oil, and as the adulterated oils of commerce contain a much larger proportion, it may be relied on for all practical purposes. In at least one case brought before a court under the Sale of Food and Drugs Act a retailer was convicted for selling an adulterated olive oil as "salad oil." This seems to us a questionable decision. "Florence oil," "Provence oil," "Lucca oil," and "Genoa oil" are names which may rightly be regarded as designations for olive oil, for they properly refer to its geographical origin. "Sweet oil" and "salad oil" are, on the other hand, terms which have been variously applied, and are as applicable to any bland, innocuous, and palatable oil as to olive oil. Cotton-seed oil appears to be useful for table purposes, and it is desirable that its use in the pure state, rather than as a mixture, should be encouraged. It ought, however, to be sold on its merits, and with the addition of some qualifying term which will indicate its origin. It is right that we should again call attention to the fact that for pharmaceutical purposes cotton-seed oil cannot be regarded as a good substitute for olive oil. It saponifies with difficulty, is a drying-oil, and the coloration which it gives with nitric acid shows that, if used for any preparations liable to oxidation, it may give curious results. The oil is official in the United States Pharmacopœia, but it cannot be said that its introduction has been so successful as was anticipated.

TECHNICAL EDUCATION IN CHEMISTRY.

TECHNICAL education, said Dr. H. E. Armstrong in the discussion at the Society of Chemical Industry on Monday night, is a popular but undefinable term. We need not attempt to follow the arguments of those who took part in the discussion, for they in a great measure wandered from the subject, indulging in the familiar allusions to German competition, instead of discussing the principles of the Bills wherein the future of technical education or instruction is definitely formulated. There are again, we are sorry to say, two Bills to receive the attention of our legislators. One is a Government Bill; the other is promoted by well-known educationists, headed by Sir H. E. Roscoe, and their points of difference are so few that it is to be regretted that the promoters of both have not amalgamated the measures. The Government measure is the longer one. It authorises School Boards to supply technical or manual instruction to pupils who pass a satisfactory examination in reading, writing, and arithmetic; local authorities are also empowered to provide additional means of instruction, such as museums, schools of science, and the like, as already provided for by the Public Libraries Act. The Bill does not substantiate Dr. Armstrong's remark regarding the undefinableness of "technical education." "Technical instruction means," says the Bill, "instruction in the principles of science and art applicable to industries, and in the application of special branches of science and art to specific industries or employments. It does not include teaching the practice of any trade or industry or employment," and so on. "Manual

instruction" means instruction in the use of tools, and modelling in clay, wood, or other material. In Sir H. E. Roscoe's Bill technical education is defined to mean instruction in—(1) Any of the science subjects undertaken by the Science and Art Department; and (2) in any of the following:—(a) The use of ordinary tools, (b) commercial arithmetic, (c) commercial geography, (d) book-keeping, (e) shorthand, (f) French, German, and other modern languages, (g) freehand and machine drawing, and (h) any other subject which the Education Department and the Science and Art Department may prescribe.

It is evident that our legislators are very clear as to what they mean by technical education or instruction, and the lines upon which they are working indicate that it is their intention to reform in some measure the methods of education now in vogue. The dead languages and literary expertness are the aim of present-day education; and the promoters of the Bills wish to have a little less of these and a greater knowledge of things and the principles of life and work. Their object is to relieve the memory by diminishing the amount of cram work, and to develop the intellectual faculties by giving the pupil work to do which will interest him and bring out his intelligence or foster his ingenuity. It is not proposed to turn the pupils into embryo mechanics, engineers, or chemists; the teaching of the general principles of science will be used because they are, in the first place, a powerful educating force; and, in the second, because it is good for the pupils to know something of such matters. The liberal lines upon which Sir Henry Roscoe's measure is drafted, especially in regard to those extra subjects, such as shorthand and commercial arithmetic, make it a preferable measure to the one sanctioned by the Government, and we trust that there will yet be some agreement between the promoters.

There is, it is obvious, a vast difference between the general technical education contemplated by these Bills and the special technical education required for the chemical industries. The former has no more bearing upon chemistry than it has upon any other industry; it will help to make boys better informed before they start in life, but it is not intended that the elementary education will be to any degree special, and although there is a fair measure of agreement as to this, when we come to the higher education we find that opinions are hopelessly at variance. This was well shown during the discussion on Monday evening. The kernel of the chairman's remarks, for example, was the education of the "heads" or principals, and the intelligent obedience of the workmen. Both of these virtues, if we may so call them, are at a maximum in Germany, where the "heads" undergo a prolonged course of university instruction, and the workmen put in three years of rigid military service. In effect, Mr. Howard said we do not want our workmen to be technically educated, we do not want them to think for themselves, we simply want them to do what they are told. With this sentiment most of the speakers agreed; but Dr. Gladstone enunciated a sounder principle when he said that the conditions of work under the present arrangements are such that men learn to do one thing only, and when a machine is invented to do that thing the men are thrown adrift on the ocean of the unemployed. Is it not better, then, that we should, if possible, teach the men in technical schools the general principles of the craft in which they are engaged, so that if one part of it ceases to require manual labour they may turn to another part with some prospect of success? This, surely, is a sound social and economic doctrine. So far as the higher technical education, viz. that for the "heads," is concerned, there is a very decided opinion amongst all sections that the Government cannot do more at present than it is doing. It would seem, moreover, that there is already a

surfeit of establishments providing such education, and the market is overstocked with well-trained chemists. On these points three very decided opinions were given by representative men on Monday evening. Professor Armstrong, as a teacher, said that pupils did not devote a sufficiently long period to collegiate training, consequently they do not become proficient all-round chemists. Mr. James MacTear, who has long experience as an employer and director of labour, emphatically stated that technical education has failed in this country, and Professor Thorpe did not attempt to deny this. The third opinion was given by Mr. Cross—well known as an authority on bleaching matters, and one of the young school of advanced technical chemists. Mr. Cross's opinion is that there is an excess of educational power in this country at present, that manufacturers do not recognise the necessity for research, and do not appreciate the value of well-trained chemists. This was a view which received the support of a large section of the meeting. It would seem that we have more than enough well-trained young chemists, English and German, and the consequence is that the salaries offered for ordinary appointments are not an adequate return for the educational expense. There is little need, therefore, for calling upon the Government to support in any way a system of special technical education which, so far, has not as a private venture given satisfactory results. By all means let original research be fostered, but Acts of Parliament are not the best means of doing that.

EXTENSION OF THE TINCTURE-DRAWBACK.

THE announcement which we were able to make last week and which has now been officially confirmed, of the extension of the recent order of the Board of Inland Revenue on the subject of the drawback on alcoholic medicinal preparations exported from this country, is undoubtedly the most important and agreeable piece of news which has lately fallen upon the drug and chemical trades. It will be remembered that just over three months ago, as the outcome of an agitation conducted with great pertinacity by a few enterprising wholesale firms, the Somerset House authorities admitted the principle that the duty which had been paid on the alcohol contained in certain medicines destined for foreign markets ought to be refunded to the shippers upon proof that their goods left the country. This concession was a most important one, for though, unfortunately, its scope was limited by a number of illogical restrictions, the principle that drawback ought, under certain circumstances, to be allowed was expressly and unreservedly conceded. But when the wholesale firms began to prepare for availing themselves of the concession, several important flaws were discovered in it, and only a few firms actually decided to make use of the new order, others preferring to await the result of further negotiations with the Inland Revenue authorities. At the meeting of the chemical section of the London Chamber of Commerce held this week, the chairman was able to announce officially that the authorities had virtually decided to concede practically all that the wholesale trade asked for. And it must be said that the extended order, which is the outcome of this decision, covers the points complained of by the trade so entirely that it seems as if it will be difficult for the most ingenious critic to find any clauses in which further concessions could be reasonably demanded, consistently with the safeguarding of the interests of the Exchequer. There is still much to be said in favour of entirely freeing alcohol used for industrial purposes, and, in fact, we repeat what we have said before, that it should be the aim of all trades-concerned in the con-

sumption of alcohol for the arts and manufactures to bring us nearer to the attainment of that object. But this is a distinct object, and in the meantime, by the new order, the manufacturers of medicinal preparations have obtained all they could reasonably expect under our present system of taxation. The principal point of the new concession is the extension of the full duty and compounder's allowance, plus a 4 per cent. compensation for loss in manufacturing, to a number of medicinal preparations of the British and various other Pharmacopœias, to quite a number of tinctures prepared according to private formulæ, and also to a long list of fluid extracts. But in addition to this concession the authorities propose to allow drawback on all other alcoholic medicinal preparations, provided it can be shown that they have been made with spirit of not less than proof strength; but in these cases—that is to say, in the case of articles not expressly named in the schedule—the extra allowance of 4 per cent. for waste will not be granted. By reducing the proportion of samples required, and by leaving their officers a certain discretion as regards the proportion of samples to be drawn from a shipment of assorted tinctures, a great and just grievance has been removed. We understand, however, that under these new conditions the Inland Revenue will not allow drawback on the spirit contained in the samples which they take. The fixing of a much smaller size of bottles (1 gill or $\frac{1}{4}$ pint) as the minimum package in which to put up tinctures under the new order will also give much satisfaction, more particularly to firms who cultivate the Indian trade, as they will thereby be enabled to bring their preparations before the native consumers in that country in the small bottles which are usually demanded in the Indian market. This could formerly be done only by having the preparations in question manufactured in Germany, or if they were made in this country, by sacrificing the whole of the spirit-duty paid. We have no doubt that under the new order our manufacturers will be able to successfully compete with Continental makers. The latter are certainly not at present granted any greater official facilities in the matter of manufacturing than our home traders, while British firms possess the great advantage of having at their doors the largest drug market, and therefore the best selection of raw material, in the world, of having by far the greatest hold upon the Indian and colonial markets and the most intimate knowledge of their requirements, and above all of the prestige which, in spite of all that has been said to the contrary, is firmly rooted in the mind of the foreigner, that the word "British" is equivalent to all that is best in the quality of manufacture and most fair-dealing in business.

A Weekly Half-holiday Bill.

Sir J. Lubbock's early-closing movement takes the form this year of a Bill enabling local authorities to establish a weekly half-holiday for shops. According to this scheme, an order may be made by the local authority requiring all shops belonging to any class within any part of its district to be closed on one specified day in each week before any hour not earlier than 2 in the afternoon. To obtain such an order it is necessary that the application for it should be signed by at least two-thirds of the shopkeepers of this class within the district. The order may be directed to have effect throughout the whole year, or during any part of it. The order may be revoked if it is shown that more than a third of the shopkeepers of the class affected are opposed to its continuance. Where two or more trades are carried on in one shop, and a closing order applies to one of them, the shop is to be wholly closed. The shops which are not intended to come under the operation of the Bill are refreshment-houses, tobacconists' shops, news agencies, and premises in which any intoxicating liquor is sold by retail for consumption on the premises. Chemists may be subject to a closing order; but, while they must not keep

their shops open, they will not thereby be debarred from supplying medicines, drugs, or medical appliances during the hours for closing. Customers who are in a shop at the time of closing may remain and be served. For infringing the measure the maximum punishment provided is a fine of 5*l*. The County Councils are to be local authorities entrusted with the administration of the Act.

* *

Preparing for Examination. A medical authority of considerable experience offers through us the following suggestions to candidates preparing for examination. No one, he says, can expect to pass a competitive test without an efficient knowledge of the subjects upon which he has to be examined, but everyone can make an effort to master the work to the best of his abilities. Moreover, it is absolutely essential that plenty of time should be allowed for reading. Let the student concentrate his thoughts upon his books as much as possible while at work, and make a practice of always going to bed before midnight. The habit of reading into the small hours of the night cannot be too strongly discountenanced, as it is apt, often permanently, to enfeeble the system and bring on sleeplessness. Success will, indeed, be dearly purchased if it be associated with any loss of health or mental vigour. The day before the examination takes place should be entirely devoted to amusements, in order that the candidate may perform the duties required of him with his mind perfectly clear. Those persons who know their work cannot possibly forget it in a day, and a clear head may make all the difference imaginable. With regard to nervousness, alcoholic stimulants are best avoided because their effect is but momentary. The following mixture, however, has been found most efficacious; its effects are lasting, and for the time being it completely banishes all signs of nervousness:—

Acid. phosphoric dil.	..	..	..	2 drachms
Strychnine ..	..	..	..	$\frac{1}{2}$ grain
Water, to make	..	..	..	1 oz.

Dose: 1 teaspoonful to be taken in water three times a day for at least three days before, and a double or treble dose to be administered immediately before entering. Each teaspoonful would contain $\frac{1}{16}$ grain of strychnine and 15 minims of acid. phosph. dil.

This prescription has been known to satisfactorily "brace up" numerous candidates who would certainly have failed without it, and not only so, but several highly nervous individuals, taking the mixture in the manner directed, have not merely lost all signs of their nervousness, but have even passed difficult musical and other examinations, gaining the highest honours. It would, perhaps, be advisable in some cases to take the medicine under medical advice, although many popular specialities, such as syr. hypophosph. co. and others, contain an approximate amount of strychnine to each dose.

* *

Pharmacists and the Phonograph. A phonograph company is being formed in Kansas City, with a capital of \$200,000, and many of the druggists are looking forward to the time when these instruments will be given around freely for the small sum of \$40 per annum. It will then be possible for them to keep a list of prescriptions with the utmost exactitude. For instance, if a physician comes into the office and wants to give a prescription, he will be invited to talk at the "machine," which will not only take down exactly what he says, but the modulations of the voice, so that in the future there will be double evidence against him, as no man would have the face to deny the authenticity of his voice. Whenever a man who contemplates suicide comes to the drug store, says the *National Druggist*, he will be asked to whisper into the ear of the phonograph the means he proposes to employ for the same, and what other excuses he has. In court the various acquaintances of the man, when they hear his demands repeated in his natural voice, will be convinced that there was no foul play in his death, but that he himself sought the bourn from which no traveller ever returns. When the average citizen of Kansas desires to take a little medicine of the spirit kind, he will be asked to speak into the throat of the telephone, and there his voice will be scheduled, and in future when the talons of the law catch hold of the druggist he will be able to prove that he was more sinned against than sinning, and the guilty man will be brought to justice. In fact, this machine is destined to mark a revolution in the annals of the drug business.

BARON VON MUELLER ON PHARMACOLOGY.

AUSTRALIAN PLANTS FOR MATERIA MEDICA.

THE second Intercolonial Medical Congress of Australasia was held in Melbourne in January, under the presidency of Mr. T. N. Fitzgerald. The meeting was very successful, both scientifically and socially. Baron von Müller was president of the pharmacological section, and his address was of especial interest. He commenced by remarking that Hippocrates, two thousand years ago, employed many of the very remedies which, under the same designation, still hold a place in therapeutic estimation. Among these he mentioned hellebore, mallow, rue, euphorbia, soapwort, sumach, Chio terebinth, aristolochia, pomegranate, fennel, chamomile, mint, pennyroyal, thyme, orris, and squill. The Baron did not trace the Eucalyptus to Hippocrates, but he found that he used the myrtle as an antiseptic closely akin to it. Tracing next the modern developments of pharmacology, he referred first to the gains to medical science involved in the application of anæsthetics and antiseptics, and then passed on to his own branch of materia medica, giving an interesting review of many new remedies. The cola seed of Western Africa, he said, although described by Caspar Bauhin fully three hundred years ago, while he was professor of medicine in Basle, had but recently entered into the materia medica; it allayed thirst like coca-leaves, and thus also should prove acceptable to diabetic patients; but, like the guaranapaulinia from South Africa, it afforded also copiously caffeine. The pilocarpus must be regarded as a fairly established and welcome acquisition, especially as its active principles, an oil and an alkaloid, could readily be isolated; the sialogogous action of the plant seemed not yet sufficiently appreciated, and might point to some value in diphtheria. Strange to say, a similar property had lately been ascribed to the ordinary garden tulip; while the lovely lily of the valley of home-countries, which could easily be naturalised in forest-glens, also claimed admission, supported by high authorities, among them Dujardin-Beaumetz. Yet, as shown by Labhée, and mentioned by the great therapist just named, Matthioli, the physician of the Emperor Maximilian II., more than three hundred years ago, insisted on its value as a cardiac sedative; while Sec and other physicians now placed convallaria next to digitalis, with the advantage of being a comparatively harmless substitute, indicated as particularly eligible in mitral diseases with hydrops, its efficacy depending on two glucosids.

Baron Müller went on to comment on the probable future before strophanthus, and then alluded to recent American observations as to the value of fagopyrum in cake form as a starchy food for diabetic patients, the use of which, it appears, does not increase the glucosurin. This observation was significant as showing how an article used for centuries as one of culinary food might escape therapeutic recognition for lengthened periods. Then he passed to sulphonal, a solid combination of sulphurous oxide with a certain proportion of carbon. If the value of this hypnotic, as testified by many observers, should be established in a majority of cases only, almost a kind of panacea was secured for an endless number of sick-rooms. Passing next to remark on Australian plants specially, Baron Müller said the diagnosis of 9,000 species of flowering plants of the fifth continent had become reliably fixed, whereby simultaneously a firm basis was gained for applied science, in all its ramifications, to trace with accuracy the vegetable products of Australia, including those for medical use, to their specific sources. Perhaps this was not much; but it should be remembered that institutions had all to be built up in these young colonies by the present generation or the one just passed away. A commencement had, however, been made. Thanks to Dr. Baneroff, both species of duboisia had been physiologically investigated, of which inquiry advantage was promptly taken in ophthalmic surgery. One of the best kinds of catechu could be prepared from Australian wattle bark. Australian spurge had been rendered pharmaceutically accessible now already on a large scale. The small herbaceous *Euphorbia Drummondii* here referred to might almost be considered identical with the *E. Chamaesyce* referred to by Dioscorides and Pliny. The *Euphorbia pilulifera* had evidently a sedative action on the respiratory organs, and had

been particularly lauded in asthma. Four large orders of plants, mainly or almost entirely Australian—the Goodeniaceæ, Myoperinæ, Candolleaceæ, and Epacridæ—remained as to medicinal, or even simply chemical, experiments almost untouched. Whether the bitter principle of some Goodeniaceæ was merely tonic, and whether the noxious properties of some Myoperinæ had therapeutic significance were as yet unascertained. The bitter bark of East Australia from *Alstonia constricta* had been chemically examined in Melbourne independently of Hesse's researches. Oil of santal was obtainable in remarkable proportion from the fragrant wood of the West Australian *Santalum cygnorum*. *Erythrophloeum Guineense*, one of the ordeal-trees of the wild and superstitious hordes of Western Africa, was shown by a Melbourne citizen, when he was in the field many years ago, to have almost its counterpart in an Australian tree of wide tropical distribution (*E. Labouchei*). Erythrophlein was largely developed in the Australian tree. The clue to the virulence of these trees was given by the negroes, who employed the plant to stupefy fish, just as the Antilleans did the bark of the medicinal piscidia, the autochthones of North America branches of gelsemium, and the Australian and some other nomads, often sprigs of some tephrosias and tribulus, for the same purpose. Abrus, longer known than cola, became recognised in its unique importance only within this decade, by De Wecker. As a plant of the tropics it extended to Australia, where it was noticed in 1699 by Dampier. Interesting data had been obtained regarding the poison-shrubs of South-western Australia, species of *Gastrolobium* and *Oxylobium*. The particular group of these simple-leaved harsh leguminous shrubs was restricted to this part of the world. At a future meeting of the congress he hoped the toxicology of the vetch-like *Swainsonas* would become elucidated. Some species of the closely allied genera *astragalus* and *Lessertia* elsewhere were known to contain powerful principles never yet studied. The cerebral derangements caused to horses particularly by *Swainsonas* (especially *S. Greyana*, the feared Darling-pea) had long been witnessed, but had never been physiologically traced. Dr. Frederick Lloyd, of Melbourne, ascertained in another Australian leguminous plant, the shrubby *goodia*, deleterious properties, and even the native indigofera was held in suspicion, while the use of *Daviesia latifolia* as a substitute for hops was actually forbidden on account of injuriousness. They could not foretell what might be revealed to us for the benefit of therapy, if the indications just given were methodically followed up. But they should be cautious not to burden the materia medica with superfluous additions, such as the gonolobus condurango of transient glory.

It remained a remarkable fact, that among the 150,000 kinds of flowering plants of the universal vegetation, only a few cinchonas gave us the quinine, for which there was as yet no real equivalent in any other plant through all the wide world. Through the whole of East Australia, in temperate, frostless, mountain regions, cinchonas might be reared millionfold. Cinchonas ripened even germinable seeds not many miles from Port Phillip. What a capability, therefore, for wide culture! Should our amply dispersed myriogynes be compared, on account of their sternutatorian properties, rather to convallaria than to arnica, the natural affinity being largely with the latter, or did the myriogyne possess properties of its own? Could leptandriu, as an American chologogue of recent introduction, be obtained from our own similar veronicas, and also from those of New Zealand? Ought the particular gratiola which fringed our brooks to remain unnoticed, when the European ranked amongst the foremost hydrogogues through three centuries, so much so that the name "Gratia Dei" was applied to the herb, as significant as that of cascara sagrada for *Rhamnus alnifolius*? What was the precise therapeutic relation of our boronias and eriostemons to the allied buchu bushes of South Africa? Could senna be obtained from any of our cassias? Could we dispense with chiretta, by using our own erythrea here? Could the very potent acrid principle of the palm-like cycas and zamia species be chemically defined, having hitherto, like the active ingredient of croton oil and of many delicate fragrances, eluded separation as distinct substances? Were the alkaloids and the aromatic oils of the four Australian mommiaceous sassafras trees from as many colonies closely akin? What was the precise position of

cassia absus, used for ophthalmic complaints by the ancient Egyptians, this plant extending to Queensland? Did any of the Australian species of croton yield an oil comparable to that of the Indian *C. tiglium*? In what way did the blue-flowering grass-lily of Western Australia (*Agrostis crinum*) affect the visual apparatus of sheep feeding on this plant, so as to cause blindness, and what conclusions could be drawn therefrom? What was the nature of the intensely bitter principle in some of our pittosporums? How far could Australian lobelias replace *L. inflata*? Could cocaine be obtained from two species of erythroxylon peculiar to tropical Australia? Had the powerful properties of zygophyllum and didiscus, manifested by their action on pasture animals, any counter-acting value in some of the morbid affections with which the therapist had to cope? Such were some of the questions the solution of which devolved especially on Australians. Baron Müller concluded this part of his address by some allusions to the proved value of the eucalypts.

NOTE ON GREEN EUONYMIN.

By H. S. COLLINS.

A SAMPLE of green euonymin came into my hands about a week ago, which had a peculiar odour and appearance. I therefore made an analysis. The result fully proved my suspicion that it was adulterated to a large extent. It was of foreign manufacture, and represents a large bulk of the green euonymin now in the market.

Physical appearance:—A rather light, somewhat sticky, powder, of a pea-green colour, with small black particles, as if a mixture of two substances, and of a peculiar heavy odour.

Under the microscope the "euonymin" was seen to consist of a large percentage of lycopodium coloured green; the black particles had no definite formation. Broken, transparent, colourless crystals were also observed, which were very slowly dissolved by a drop of water placed upon the slide. A drop of solution of potash dissolved them immediately.

An analysis was made, with the following result:—

	Per cent.
Lycopodium	23.8
Dark green resin, consisting chiefly of ext. Indian hemp	15.2
Water extract: Bitter extractive matter	20.6
Sugar of milk	30.0
Water	4.4
Total	100.0
Ash.. .. .	1.2

The following remarks regarding the analysis may be of interest:—2.5 grms. were dried on water-bath for moisture, then ignited for ash; 2.5 grms. were added to 20 c.c. hot water, when the characteristic odour of Indian hemp was at once recognised. It was stirred, filtered, and washed, until the washings were colourless, the residue dried, and weighed. Loss—water previously determined and water-extract.

The solution was of a very light colour considering amount of matter extracted, neutral to test-paper, and of bitter taste.

The behaviour of the crystals under the microscope with potash solution and the low percentage of ash led me to suspect sugar of milk, which was confirmed by Fehling's solution. The quantity present was estimated by Fehling's solution, standardised by sugar of milk.

The bright green residue left after extracting with water was exhausted with hot spirit until all green colouring matter was dissolved; residue dried and weighed. This residue was of a light yellow colour, and under the microscope was seen to consist entirely of lycopodium.

On evaporating the spirituous extract in a water-bath a green resin was left, having the odour and all characteristics of extract of Indian hemp, and constituted 15.2 per cent.

The above analysis tends to confirm several notes that have previously been published, condemning green euonymin as being most unsatisfactory, and often inert. There is little doubt that the brown is usually much superior to the green variety now in the market.

MARRIAGES.

[Notices of Marriages and Deaths are inserted free if sent with proper authentication.]

BORDAS—BARDNER.—On February 26, at Chapel-Allerton Church, by the Rev. R. R. Kirby, James Bordas, chemist and druggist, of Driffield, to Marion Christie, eldest daughter of the late Henry Bardner, of Ripley, Yorkshire.

CLARK—KEEGAN.—On March 4, at St. George's Parish Church, Dublin, by the Rev. Leslie A. Handy, Harry Clark, pharmaceutical chemist (Ireland) second son of Thomas H. Clark, of Sydenham, Kent, to Kathleen, daughter of the late James Keegan, of Booterstown, co. Dublin.

DEATHS.

FAULCONBRIDGE.—On February 25, Mr. Alfred Falconbridge, chemist and druggist, 68 Lambeth Walk. Aged 46.

FOULKES.—On February 28, at Grange Mount, Claughton, Birkenhead, William James Foulkes, pharmaceutical chemist. Aged 66. Mr. Foulkes originally carried on business in Argyle Street, opening the pharmacy in Grange Mount as a branch. He soon after devoted his whole attention to this, which has been a very select business. Mr. Foulkes was well known as the maker of an excellent cement and toilet powder, which bear his name.

MARSDEN.—On February 25, Mr. Thomas Marsden, wholesale chemist and druggist, Preston. Aged 54. Mr. Marsden was a native of Kirkby Lonsdale, and went to Preston as a youth as apprentice with Mr. Bell, chemist and druggist, Walker Street. Mr. Marsden afterwards commenced business for himself in Lancaster Road, the shop being now occupied by his brother. About twenty-six years ago he removed his business to the Market Place, where he was very successful, and this shop was some years ago transferred to his nephew, Mr. Leece. Mr. Marsden then devoted his attention to the occupation of a wholesale druggist, at a warehouse in Anchor Court, and besides attending to a large connection found time to devote to his duties as a partner in the Moor Park Manufacturing Company.

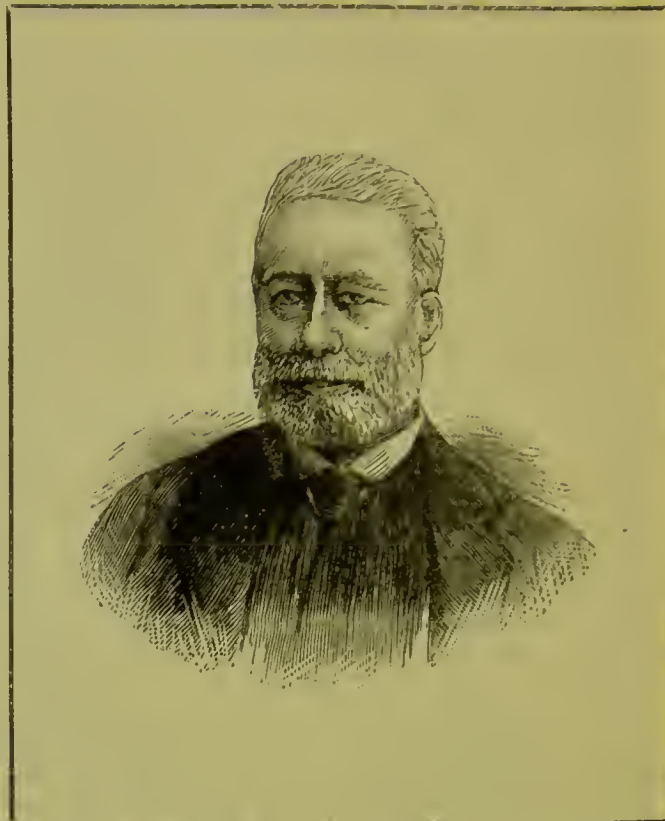
ROBINSON.—In February, Mr. Simon Robinson, of Chester-le-Street, chemist and druggist. Aged 85. He was much esteemed by his neighbours, and every position of trust in his native town which he would accept was offered to him. At an early age he, with two others, set off for London by coach from Carlisle. One of his companions was George Moore, who ultimately became one of the principals in the famous firm of Copestake, Moore & Co., and was still more widely known as a millionaire philanthropist. Mr. Robinson found his way to Brighton, but ultimately came back to Chester-le-Street, to conduct the business of Mr. R. Councillor, whose widow he afterwards married some sixty-two years ago.

SOYKA.—The death is announced of Dr. Isidor Soyka, Professor of Hygiene at the German University of Prague, Austria. Dr. Soyka, who was born at Jaromer in Bohemia thirty-nine years ago, enjoyed a considerable reputation on the Continent as a bacteriologist, and had written a large number of papers on subjects connected with that branch of science. One of his brothers recently became insane, and the fear to succumb to a similar affliction drove Dr. Soyka to suicide by means of a revolver.

STEPHAN.—On February 24, Mr. J. H. Stephan, chemist and druggist, Chipping Norton, Oxfordshire. Aged 64.

WILLIAMS.—Mr. John Williams, F.C.S., F.I.C., an ex-President of the Pharmaceutical Society, ex-President of the British Pharmaceutical Conference, and associated for many years with the chemical trade as a partner in the firm of Hopkin & Williams, Cross Street, Hatton Garden, died on Sunday last, March 3, at his residence, 63 Warwick Gardens, S.W. Mr. Williams was born in Spitalfields, London, on March 9, 1824. His father was a schoolmaster, and a man of much talent, who was connected with several learned societies, and had held office as secretary of the Royal Astronomical Society. John Williams received a liberal education, and at first entered the London Dispensary with a view of preparing for the medical profession. But his tastes inclined

him much more to chemistry, and after attending lectures at the London Institution he subsequently, in 1840, obtained a position in Mr. Morson's laboratory, Southampton Row. While there he attended lectures at the Pharmaceutical Society, and in 1844 his name appeared at the top of the list for practical pharmacy. In the autumn of 1850 he associated himself with Mr. W. King Hopkin, another assistant



of Mr. Morson, and these two established the business of Hopkin & Williams in the shop now occupied by Mr. Martindale. They soon acquired a reputation for fine pharmaceutical chemicals, and the year after they started in business took a prize medal for their exhibit of chemicals in the Exhibition of 1851. After being in New Cavendish Street about twenty years Messrs. Hopkin & Williams bought from a Swedenborgian church the chapel which had formerly been the scene of Edward Irving's sensational ministry, and this they converted into a very commodious chemical factory. The business was sold to Messrs. Howards & Sons last summer, Messrs. Hopkin & Williams retiring from active participation.

Mr. Williams was a member of the Pharmaceutical Council for seventeen years. He filled the office of treasurer for three years, and was also President of the Society from 1876 to 1879. He was President of the British Pharmaceutical Conference in 1884 when the meeting was held at Hastings.

As an investigator Mr. Williams's work may be said to have begun with a paper on the volatility of arsenic in green paper-hangings to the Chemical Discussion Association of the Pharmaceutical Society at the latter end of 1858. Since then he made periodical contributions to pharmacy, the subjects being closely allied to his daily work as a manufacturing chemist. It is interesting to note, for example, that as far back as 1871 he described the preparation and properties of guaiacol, a body which has lately been vaunted as a remedy for phthisis. Three years later he made the useful observation that glycerine is an excellent preservative of hydrocyanic acid, and again after an interval of three years he attacked nitrite of ethyl, and made that fickle substance in a greater state of purity, perhaps, than it had been made up to that time, and proved that the addition of glycerine improves its keeping properties, a fact which has since been taken advantage of by others. Advancing age seems to have affected Mr. Williams differently from most pharmacists of a literary turn; for of late years he was more active than he was in his youth, and he could be safely trusted to com-

muiccate one or two papers to each annual meeting of the British Pharmaceutical Conference. Amongst his latest efforts in this direction were papers on the manufacture of crystallised aconitine and the purification of cocaine hydrochlorate, which deservedly called forth high praise. He was one of the first to recognise the importance of salicylic acid and the salicylates as remedies, and upon these he made some useful observations when their properties were but little understood by pharmacists. If there was one characteristic more than others prominent in Mr. Williams's papers it was their practical nature and the hints which they conveyed to future operators. He was never above telling what were the little difficulties which he had met with and how they were overcome; and doubtless there are many who have benefited from the information conveyed. Although it cannot be said that Mr. Williams was a prolific writer, the work that he did in his lifetime was of an enduring character, and he has been the directing force in many an investigation with which his name was not associated. He was an active Fellow of the Chemical Society and was regarded in Burlington House as the authority on all chemical matters related to medicine and pharmacy. He was at one time a member of the Council, and was also a vice-president of the Society of Chemical Industry.

SIMPLE TESTS FOR THE IDENTIFICATION OF CERTAIN NEW REMEDIES WHEN COMPRESSED INTO TABLOIDS.

By A. PERCY SMITH.

THE new remedies—antipyrin, antifebrin, phenacetin, salol, sulphonal, and urethane—when compressed into tabloids cannot, on account of their similarity of form and colour, easily be distinguished from one another by simple inspection. The following tests will, however, be found sufficient for the identification of the drug should the label on the bottle by any accident be defaced or removed.

One 5-gr. tabloid + 5j. HNO ₃			Diluted with 3ss. water
	Cold	Hot	
Antipyrin ..	Liquid turns yellowish.	Violent action; tabloid turns deep red, and dissolves to red liquid.	Turbid purple liquid; deposits on standing.
Antifebrin ..	Nil.	Violent action; liquid turns orange.	Yellow orange solution, growing turbid as it cools.
Phenacetin ..	Tabloid and liquid both turn yellow.	Violent action; yellow liquid; on cooling becomes solid by separation of crystals of trinitrophenol.	Partial solution of crystals.
Salol	Very faint violet tint; tabloid melts on slightly warming.	Strong action; orange liquid; crystals separate on cooling and float to surface.	Pale yellow liquid, white floating crystalline mass.
Sulphonal ..	Liquid slightly yellow.	Tabloid dissolves to a clear yellow solution.	Colourless; deposits white crystals on standing.
Urethane ..	Dissolves easily.	No change.	No change.
Sulphonal .. Phenacetin ..	+ a drop of solution of ferric salt		= slight stain.
Antipyrin ..	"	"	= deep blood-red colour.

Trade Notes.

THE report of Price's Patent Candle Company (Limited) shows a profit for 1888 amounting to 69,905/.

SPRATTS PATENT LIMITED, London, have received a first award at the Melbourne Exhibition for dog biscuits.

THE YORK GLASS COMPANY have obtained a first-class award for their exhibit of glass bottles at the Melbourne Exhibition.

MESSRS. GENT & CO., of Leicester, have received a first-class award at the Melbourne Exhibition for their exhibit of electrical apparatus.

THE PHARMACEUTICAL SOCIETY OF TAMATAVE, Madagascar, have opened a drug store and pharmacy under the management of Mr. St. Jean.

DR. WILLMAR SCHWABE, Okerstrasse 3, Leipzig, has obtained at the Melbourne Exhibition a first-class award for homoeopathic, domestic, and travelling pocket and veterinary cases.

MESSRS. GEORGE WATERSTON & SONS, sealing-wax manufacturers, have removed from Rose Street, Newgate Street, to larger premises at 8 St. Bride Street, Ludgate Circus, E.C.

MESSRS. W. J. & L. R. SCAMMELL have purchased the business of Messrs. F. H. Faulding & Co., wholesale druggists, of Adelaide, South Australia. The Messrs. Scammell were partners in the concern. They will carry it on under the old style.

ALDERMAN GRIGGS, the Mayor of Loughborough, has been giving a series of mayoral festivities, including a banquet and juvenile fancy dress ball. On both occasions the principal rooms were perfumed by Mr. W. F. Charles, chemist, Market Place, with his "Charnwood Forest Bouquet," to the great delight of everybody present.

MR. A. R. QUALTROUGH, who has been engaged for thirteen years with the well-known firm of Berkley, Taylor & Co., wholesale druggists, Brisbane, Queensland, has opened a business at Brisbane on his own account as a manufacturers' agent, and offers by advertisement in this journal to thoroughly work the colony on behalf of those firms whom he may represent.

MESSRS. F. NEWBERY & SONS' annual catalogue for 1889 is now being issued to the trade. This is the ninth annual issue, and it consists of nearly 600 pages, 731 new entries having been made, 364 removed, and 475 quotations modified. The druggists' sundries section has also been amplified. Some weeks ago we referred to the literary contents, which are of peculiar value, and we may now say of the whole catalogue that it is the most complete one published in this country or elsewhere.

WE have received from Messrs. Quibell Brothers, of Newark, a copy of their "annual pamphlet," which, in addition to a list of their manufactures, contains remarks on farm seeds, manures, feeding-stuffs, and sheep-dressings. This is a very useful pamphlet, and we congratulate the compilers on its production. The chromo lithographs of the principal grasses are admirable, and are alone worth the few pence at which the pamphlet sells. Chemists could profitably undertake the distribution of this farmer's companion.

MESSRS. LYNCH & Co., Aldersgate Street, E.C., have just issued their new catalogue of druggists' sundries, proprietary articles, shop-fittings, and surgical instruments, for the current year, classified and numbered in the convenient manner which we have before described. What is noticeable is that they have this year issued a bulky book of illustrations separate from their catalogue. The illustrations occupy 308 pages and number over 2,000. Surgical instruments are very freely illustrated, these occupying 200 of the pages of the book. The references of the catalogue to the book of illustrations are very conveniently arranged. The book of illustrations is bound in limp morocco, and is a very useful book for chemists to have by them. We understand that a copy of this and of the catalogue will be sent to any chemist who applies for them.

Medical Gleanings.

ESERINE IN GLAUCOMA.

DR. G. PARDLE, writing in the *Pacific Med. and Surg. Journ.* for November, on the treatment of twenty-four cases of glaucoma with eserine, arrives at the conclusion that operation alone would not have yielded as good results, and that those cases which resist eserine are apt to be stubborn and resist even operation.

TREATMENT OF HÆMORRHOIDS BY GLYCERINE.

MR. HARLE, M.R.C.S., of Hackney, reports (*Brit. Med. Journ.*) that he has recently employed enemata of glycerine in one case with such success that in a few weeks a congested internal pile was reduced from the size of a large filbert to that of a pea. The patient injected two drachms of glycerine into the rectum every morning a short time before going to stool.

A NEW REMEDY FOR CONSTIPATION

is proposed by Dr. G. E. Jeafferson. This is "table exercise." Let the patient stand upright, with the back to a firm table the height of the buttocks, and, keeping quite straight, incline backwards slowly till the trunk and head rest on the table; then, keeping quite straight, raise the trunk till the feet touch the ground, and repeat this motion three times. This exercise may be repeated once or twice during the day.

IS APOMORPHINE SAFE?

MEDICAL men are exercised at present as to whether apomorphine is a safe emetic or not. The injection of the ordinary dose has been followed in some cases by collapse, extreme depression of the pulse, and feeble respiration. The symptoms altogether seem to be of an alarming character, and as some of the cases in which they were observed were subjects who had taken poison, Dr. Telford Jones questions if the symptoms were not the result of the poison. He states that too large doses of apomorphine are given in most cases where one-twentieth grain will amply suffice as an emetic, but in cases of poisoning the dose should be larger, say one-tenth. Referring to the change in colour of aqueous solutions of apomorphine, he states that this does not affect the therapeutical action of the drug, though by some writers alarming symptoms have been ascribed to the injection of such a solution. Dr. Jones has used such an injection two years old, with results equal to those of the most freshly prepared solution—in fact, he has never seen any ill results from the use of an old solution, and puts equal reliance in old and new solutions, paying no heed to the discoloration.

CHILDREN'S COUGHS.

In the course of a paper on "The more rational treatment of respiratory affections" (*Prov. Med. Journ.*), Mr. Clark Burman, L.R.C.P., makes some pertinent remarks on the cough of children, which, with the accompanying symptoms, may be described in his words as "a troublesome hacking cough, accelerated breathing, slightly increased temperature, with general restlessness interfering with sleep;" in short, a "slight catarrhal affection." The mixture commonly given in such cases is somewhat as follows:—

Vin. ipecac.	..	..	..	..	3ij.
Tinct. camph. eo.	..	..	..	..	3ij.
Aque ad	..	..	..	..	3iv.

M. Fiat m'ist. Sig.: 3j. vel 3ij. pro re nata.

Mr. Burman points out that this is not good, because all children bear opium badly; and although he admits that it is absolutely necessary in some ailments of children, he would decidedly exclude it in the treatment of respiratory affections, particularly acute or sub-acute inflammatory manifestations of disease in these organs. By means of a combination of saline diaphoretics and expectorants we may attain the desired end without running any risk from opium, owing to idiosyncrasy, &c., and the following prescription meets the case:—

Liq. ammon. acet.	..	..	..	..	3iv.
Vin. ipecac.	..	..	..	..	3iss
Sp. æth. nit.	..	..	..	..	3j.
Aque ad	..	..	..	..	3ij.
Fiat mist.	8lg.	: 3j.	vel 3ij.	3 tds horis.	

WHAT TO DO IN COCAINE-POISONING.

MORPHINE is to some extent an antagonist to cocaine, as it is to atropine; but no beneficial results appear to follow the administration of opium or morphine in cocaine-poisoning, even in large doses. Nitrite of amyl has been recommended as an antidote; it dilates the peripheral vessels, while cocaine contracts them. In cases of poisoning, however, it does not appear to have been of much use. The chief symptoms in severe cocaine-poisoning are referable to the nervous system; these are unconsciousness and convulsions. The latter, which are clonic in character, are cerebral in origin, since they are not produced in animals if the spinal cord be divided. However, death occurs, either from respiratory paralysis or, perhaps more frequently, from tetanus of the respiratory muscles. Cocaine, in fact, acts upon the central nervous system from above downwards; it first affects the cerebral hemispheres, then the medulla oblongata, and finally the spinal cord. Chloral hydrate antagonises all the actions of cocaine, except the rise of temperature. Although chloral itself produces a great fall of body temperature, it does not counteract the rise produced by cocaine. In poisoning by this alkaloid, Mosso, as the result of numerous experiments, advises the inhalation of ether or chloroform; in this way death by respiratory tetanus is prevented. When the patient is recovering somewhat, chloral in small doses may be administered. But prevention is better than cure; and there is no doubt that as great care ought to be taken in using cocaine for its local anæsthetic effect, as in the exhibition of any other powerful drug, and especially is this the case when it is injected hypodermically. —*Brit. Med. Journ.*

SACCHARIN.

DR. H. MACNAUGHTON JONES communicates a very interesting letter to the *Lancet* on the dietetic and medicinal use of saccharin. He has used it for more than a year, and has never known any injurious effects follow its exhibition. The great mistake generally made with it is that its intensely sweetening property is overlooked, and too much is used both for purposes of diet, as when it is added to tea or coffee, and pharmaceutically, when it is prescribed for rendering palatable mixtures, powders, &c. Also, the intense *first effect* of saccharin on the palate is generally forgotten. Dr. Jones has found saccharin useful in disguising the taste of quinine, muriated tincture of iron, antipyrin, salicylate of soda, salicin, the oils of copaiba and santal—either of these oils emulsified by compound powder of almonds, in which the acacia has been increased by 25 per cent., and the sugar replaced by an equivalent of saccharin, forms a mixture that is comparatively palatable, and, owing to the antiseptic property of the saccharin, it keeps much longer than one made in any other way. Its utility in emulsions as a preservative is very great, and is noteworthy in the case of cod-liver oil, guaiacum, hydrastis, cascara sagrada, and chloride of ammonium. In an infinite variety of forms the elixir of saccharin will be found of use in prescribing. Dr. Jones gives the following formula for a

Palatable Biscuit,

which is useful in some cases of diabetes, and was made for him by Mr. Benson, of Great Portland Street. Each biscuit contains:—

Gluten flour	..	..	..	..	11 5 grms.
Butter	..	..	..	..	2 75 "
Eggs	..	..	..	..	8 5 "
Saccharin	..	..	..	..	0.01625 "

A second formula provides for 1.5 of peptone of beef in each biscuit, which is thus equal to its own weight of lean meat. These are admirable for business men suffering from diabetes. In another formula, bran, freed from starch, replaces half the gluten. The following formula is for a hard lozenge, which is useful in irritable states of the throat:—

Calcii chlorid. and magnes.	..	of each	½ gr.
Sodii bromid., pot. chlorat. boracie	..	..	1 "
Calcii carb., mag. carb., sodii bicarb.	..	..	2 "
Saccharin	..	..	3 ½ "

This lozenge is not disagreeable to suck, and has a decidedly soothing effect on the mucous membrane.

BRITISH AND FOREIGN CONSULS' REPORTS.

BRITISH HONDURAS.

Waiting to be developed. The colony of British Honduras, or Belize, on the eastern coast of Central America appears to offer an excellent field for immigration. The population in 1887 was 27,668, and the area 7,562 square miles, of which less than 1 per cent. is under cultivation. Mahogany, logwood, tobacco, sugar, rum, and rubber form the staple exports; but an immense trade in fruit, notably bananas, oranges, limes, and mangoes, has lately been created with the United States, who own the only line of steamers calling at Belize. Extension of the mail service and a railway into the interior are badly wanted; the latter, in fact, owing to the difficulty of getting the wood from the interior to the sea coast, has become indispensable, while, owing to the millions of tons of logwood which its advent in the west would tap, it should repay at once the cost of its introduction into the colony. The soil is bountiful, the hands are few, the virgin forests are rich, the roads to their midst are scarce. Given immigrants and a railway, Belize might become in a short while the principal port of Central America and the entrepôt between the Atlantic and Pacific oceans.

BULGARIA.

Hints to British Traders. In 1887 the imports of foreign goods into the Principality reached over 2,500,000*l.*, of which over one-third came directly from the United Kingdom. The exports were worth about 1,750,000*l.*, and of this only one-sixth went to Great Britain direct. Our consul thinks that the increased facilities for transport offered by the opening of the Bulgarian State Railway and the Turco-Servian line from Salouica to Nish should help materially to secure the preponderance of British trade in the Balkan peninsula. Further facilities for the transport of British products will be provided by the construction, now proceeding, of the branch line from Yamboli to Bourgas, connecting the port of Bourgas with the system of Bulgarian railways, and rendering all trade entering by that route free of the drawback of transit dues necessarily levied on the routes passing through Ottoman territory. In Southern Bulgaria Austrian products are sold to disadvantage, owing to the competition of superior articles of British and French manufacture, but in Western Bulgaria and those districts towards the north which are not reached from the Danube, Austrian wares of inferior quality have been scattered broadcast through the country by Austrian itinerant pedlars, the prices generally being higher than those of the same goods of British or French origin. The influx into these parts of British products must necessarily tend to lower these prices, and if British merchants can supply the markets with a superior class of goods at equal or even slightly higher prices than those of Austrian manufacture, there is but very little doubt that the people will soon learn to appraise their respective merits, and to select those which, from their solidity and durability, would be cheaper to them in the long-run.

FIJI ISLANDS.

Drug Imports. Fiji imported in 1887, 188,071*l.* worth of goods, nearly half of which came from New South Wales, and a considerable proportion from New Zealand and Victoria, which are gaining rapidly at the expense of New South Wales; the United Kingdom contributing about 12 per cent. to the direct trade. The imports include:—

	1884	1885	1886	1887
	£	£	£	£
Drugs	5,286	3,840	2,530	2,088
Soap	2,466	2,344	1,765	1,715
Oils and oil stores ..	10,497	8,974	7,811	7,954
Paints	2,284	1,077	1,030	1,174

Fiji Tea. The year 1887 was the first in which the export of tea attained to any dimensions, the figures having been as follows:—1884, 236 lbs.; 1885, 968 lbs.; 1886, 220 lbs.; 1887, 20,950 lbs. The local consumption is also considerable, the tea being considered of excellent quality.

The population of Fiji is 124,658, of which 2,105 are Europeans.

Trade Report.

Notice to Retail Buyers:—It should be remembered that the quotations in this section are invariably the lowest net cash prices actually paid for large quantities in bulk. In many cases allowances have to be added before ordinary prices can be ascertained. Frequently goods must be picked and sorted to suit the demands of the retail trade, causing much labour and the accumulation of rejections, not all of which are suitable, even for manufacturing purposes.

It should also be recollected that for many articles the range of quality is very wide.

42 CANNON STREET, E.C., March 7.

BUSINESS in nearly all departments, with the exception of two or three articles, such as quinine, quicksilver, and shellac, has been very quiet since our last report. In fine chemicals there are a number of changes to report, but all towards lower rates, the articles concerned being tartaric acid, cream of tartar, cocaius, quinine, mercurials, and quicksilver. The alterations in the drug market are none of them very remarkable, and it will be enough to say that fine cardamoms, cascara sagrada, ipecacuanha, Shensi rhubarb, and quassia are dearer, while for copaiba balsam, jalap, orris root, and fine Tonquin musk more money is asked. Cod-liver oil is quoted lower by some, and higher by other holders. At the drug sales a decline, more or less important, was established in Cape aloes, cascarrilla, civet, ordinary cardamoms, ergot of rye, gum Benjamin, and common Tiunevelly senna.

In the outside markets—drysalteries, spices, heavy chemicals, &c.—there have been a good many changes. Shellac, for instance, closes much dearer; quillaya is also higher, and for Irish moss more money is wanted. On the other hand, China galls, gambier, cocoa butter, and pumice-stone are easier. Sulphate of copper, sulphate of ammonia, and chlorate of potash also fall under the latter category, but yellow prussiate of potash is a little dearer. Against an advance in rape oil and turpentine we must place lower values for cotton-seed oil, Mogadore olive oil, and petroleum. Low grades of Central American indigo are cheaper; and in the spice department we note higher rates for arrowroot, pimento, and cassia buds, but lower prices for cassia lignea, white pepper, and nutmegs.

SAMPLING OF CASCARILLA.—At to-day's drug auctions some discussion arose with regard to the alleged habitual unreliability of the samples of cascarrilla which are shown in the brokers' sale-rooms, and which serve as guides to buyers of that article in making their purchases. At present one sample is made to do duty for a whole "pile" of goods; thus, at to-day's auctions one sample was drawn to represent 48 bales, and another 62 bales. Mr. Ziegele complained that some time ago he purchased ten packages of cascarrilla for shipment to the Continent, and when they arrived there it was found that five of them contained dust only, while the sample represented good quality bark. Mr. Chas. Christey, the presiding broker, said that the fault did not lie with his firm, but with the dock company who drew the samples. Mr. Richard Barron asked why every bale of cascarrilla offered should not be separately sampled, to which Mr. Christey replied that the expense would be too heavy. Mr. Ziegele, however, formally proposed, and Mr. Horner seconded, that in future a sample should be shown of every bale of cascarrilla offered for sale. This was put to the vote, and carried by about 25 votes, no one voting on the other side.

CHEMICALS IN THE NORTH OF ENGLAND.—Our correspondent writes that business in heavy chemicals is extremely quiet in the North. All markets, without exception, are dull, and there is no new feature of any importance to communicate.

THE Board of Trade Returns for February, issued this afternoon, show an increase in the total value of the imports of 2,779,101*l.*, or 9½ per cent.; but the exports show a diminution of 383,139*l.*, or 1½ per cent.

ACIDS.—*Citric* is very dull, the spot quotation still being 1s. 5d. per lb., though there is no business at that figure, so far as we can gather. *Tartaric* has again declined about $\frac{1}{2}$ d. per lb., being now held at 1s. 3d. to 1s. 3 $\frac{1}{2}$ d., according to brand, a quotation which appears to deserve attention. *Oxalic*, unchanged, at 4 $\frac{1}{2}$ d. per lb., with *Sal acetos* 6 $\frac{1}{2}$ d. for crystals, and 7d. per lb. for powder.

ACONITE.—Twenty-three cases *Japanese* root, somewhat small mixed, were partly sold at from 35s. to 38s. per cwt.

ALOES.—All varieties were in good supply to-day, and a rather larger proportion than is usual was sold at low rates. Of 92 cases *Cape* 52 were disposed of at easy rates to about 1s. decline; good bright hard, 19s.; slightly gritty, 18s. to 17s.; drossy and more or less dull, 16s. 6d. to 12s.; and common rubbishy, 6s. per cwt. A case of good *Natal* liver sold at 28s. Of *Curaçao* aloes a lot of very fine bright livery was bought in at 120s. per cwt.; good liver in gourds sold at 60s.; fair, 40s. to 45s.; ordinary dark to good *Capey*, 21s. to 31s.; very common and woody, 10s. down to 5s. per cwt. Over 350 packages were sold. Of *Socotrine* aloes 10 kegs fair brown, but soft, sold at 90s. per cwt., fair pale in monkey skins at 90s., and common at 47s. per cwt.

AMMONIA SALTS.—*Carbonate* steady at 3 $\frac{3}{4}$ d. per lb.; *Sal ammoniac* selling at 34s. and 36s., according to quality. *Sulphate* is lower; Beekton terms, 11l. 15s. to 11l. 17s. 6d.; London, 12l.; Hull and Leith, 11l. 16s. 3d.

ANISE.—*Russian* seed unchanged in price at 20s. for fair quality. In *Staranise* no business is reported here; price nominally 80s. to 85s. per cwt. China mail reports, dated January 30, say that there was some demand for Europe, but the limits were too low to admit of business. The shipments for the season 1888-9 have been 1,407 cases, against 700 cases in 1887-8.

ANNATTO.—None was offered at to-day's auctions. In Liverpool good *Cayenne* annatto is held at 1s. to 1s. 2d. per lb., good brands of *Guadeloupe* selling in a small way at 2 $\frac{1}{2}$ d. per lb.

ARSENIC keeps firm at the advance; powdered white lauded, 13s.; lump, 22s. per cwt.

BALSAMS.—*Copaiba.*—Higher prices are asked with each transaction, as the supply of good qualities becomes smaller. For bright *Maranham*, 2s. 11d. per lb. was, we understand, the last quotation. Good *Peru* balsam sold at auction to-day at 4s. 8d. per lb., which shows a steadier market, and *Tolu* is also looking up somewhat, 1s. 4d. being paid for good quality.

BLEACHING-POWDER.—Fairly steady at 8l. 5s. to 8l. 7s. 6d. here, and 7l. on the Tyne.

BORAX is still being sold by second-hand holders at 28s. 6d., perhaps 28s., while the refiners require 30s. per cwt.

BROMIDE OF POTASSIUM.—There is no alteration in the position of this article.

BUCHU.—Quite lifeless. At auction only a small transaction in very low discoloured long leaves, at 2 $\frac{1}{4}$ d. per lb.

CAFFEINE is very quiet. The British makers ask 12s. for the *Alkaloid* and 10s. 6d. for the *Citrate*, but might be inclined to entertain offers for large quantities.

CALABAR BEANS are still held at 8d. per lb.

CALUMBA.—Of 365 packages offered at auction to-day, 200 were sold at low rates: good sound small to bold yellow mixed, 29s.; dusty dark and fair mixed sorts, 16s. to 16s. 6d.; common dull grey and damaged, 10s. to 14s. per cwt.

CAMPHOR.—English *Refined* flowers, 1s. 2d.; bells, 1s. 3 $\frac{1}{2}$ d.; tablets up to 1s. 6 $\frac{1}{2}$ d. per lb. *Crude* seems quiet on the spot, and we hear of no transactions. A cable from Hong Kong received here this week states that stocks are exhausted there, but mail reports from the same centre, under date of January 30, state, on the contrary, that prices are pretty firmly maintained, although the demand for India was falling off, and supplies from Japan are increasing. The shipments for the season 1888-9 were 949 cases, those in 1887-8 had been 4,384 cases.

CANELLA ALBA.—Eight bales small but very broken and partly dark mixed are held at 20s. per cwt.

CANNABIS INDICA.—Eleven bales brownish tops sold at 2 $\frac{1}{4}$ d. per lb.

CANTHARIDES.—Nineteen cases good bold to small *China* all bought in, the best at 1s. 4d. per lb.

CARDAMOMS are rather freely offered, and at to-day's auctions 118 cases, out of a total shown of 211 were sold at very irregular rates, the better grades being generally dearer, but medium and ordinary qualities experiencing a decline of from 2d. to 3d. per lb. *Ceylon Malabar*, medium to bold heavy pale, 3s. to 3s. 1d.; good pale, slightly warty and specky, 2s. 11d.; good medium round pale yellow to brownish, 2s. 7s. to 2s. 4d.; medium sized brown, 2s.; small brown mixed and rather skinny to very specky, 1s. 9d. to 1s. 6d.; very small, 1s. 2d. *Mysore*, fine pale bold, 3s. 3d. to 3s. 5d.; medium-size ditto, 2s. 6d. to 2s. 7d.; long pale bold, 2s. 3d. to 2s. 4d.; small to medium grey specky, 1s. 8d. to 2s.; small long pale, 1s. 9d.; dull mixed and split, 11d. per lb. *Wild Ceylon*, small, 9d.; *Seeds*, pale to good brown, 1s. 6d. to 1s. 9d. per lb. The shipments for Ceylon in the periods between October 1 and February 14 are given as follows: 1888-9, 131,108 lbs.; 1887-8, 150,836 lbs.; 1886-7, 147,315 lbs.

CASCARA SAGRADA.—At to-day's auction the first parcel of Oregon bark which has been until now offered in the open market was shown, and bought in at 3s. per lb., there being no bids, though 2s. 4d. per lb. was solicited. The bark can scarcely be mistaken for the true cascara, its appearance being quite different from the latter. We hear it said that in New York 3s. 6d. per lb. has been paid for the true bark, but in London from 2s. 9d. per lb. was asked this week.

CASCARILLA.—At auction to-day 147 bales were offered, of which 14 sold at somewhat lower rates; good bold silvery, but rather dusty, 32s. 6d.; thin and somewhat mouldy, 26s. to 23s. per cwt.

CASSIA BUDS, firm, at 50s. per cwt. The shipments from Hong-Kong for the season 1888-9 have been 1,434 cases, against 228 cases in the previous season. The stock in China is said to be small.

CASSIA FISTULA.—Ten baskets good fresh slightly wormy pods from Singapore sold at 14s. 6d. per cwt.

CASSIA LIGNEA.—Prices are still tending lower, and holders would be willing to accept 18s. per cwt. for whole quills. The stock in London is unprecedentedly heavy—185,706 cases at the beginning of the month, against 121,421 cases in March, 1888. According to reports from Hong-Kong, dated January 30, the shipments of cassia lignea (whole and broken) from that port to all parts have been, for the season 1888-9, 5,445 piculs; for the season 1887-8, 83,517 piculs. It is added, however, that there is a very heavy stock of *Taino* cassia, some 36,000 piculs, on hand in Hong-Kong and 15,000 piculs broken cassia, but no *Loting* cassia.

CHAMOMILES.—There is no change in price, and very little is now available. At to-day's auctions three bales small grey flowers sold at 67s. 6d. per cwt.

CHINA ROOT.—Fifteen bales, imported last December, were sold to-day without reserve at extremely low rates, viz. from 3s. to 4s. per cwt.

CHIRETTA.—Twenty bales sold cheaply at 1 $\frac{3}{4}$ d. rising to 2 $\frac{1}{4}$ d. per lb.

CINCHONA.—A rather large quantity of flat *Calisaya* bark was offered for sale to-day, but only a few packages sold cheaply, bold but thin, 1s. 4d. per lb.; damaged, 1s. 3d. per lb. *Guayaquil* in good grey silvery quills sold at 1s. 3d.; damaged rusty brown to stout, 7 $\frac{1}{2}$ d. to 10d. Good mossy *Loza*, 1s. 11d. per lb. Fine bold bright *Maracaibo*, *via* Hamburg, 7d. to 8 $\frac{1}{2}$ d. per lb. The shipments of cinchona from Ceylon in the periods between October 1 and February 14 are as follows: 1888-9, 4,654,712 lbs.; 1887-8, 3,637,334 lbs.; 1886-7, 6,110,844 lbs. From Java the exports during the last three years have been:—

	1888	1887	1886	1885
Private Plant. ..	Amst. lbs. 3,136,086	Amst. lbs. 2,223,465	Amst. lbs. 1,626,115	Amst. lbs. 849,551
Govt. " ..	529,942	682,319	546,279	436,977
Total ..	3,666,028	2,905,785	2,172,394	1,286,528

At the Amsterdam auctions, on March 21, about 171 tons Java bark, representing about 205,000 oz. quinine sulphate, will be offered.

CIVET very dull and neglected. For 3 horns 7s. 9d. was refused to-day, 8s. being the price.

COCAINE.—Several packages of crude South American cocaine have been landed this week. For hydrochlorate we hear lower prices quoted. Business is said to have been done at 13s. for bulk, though makers quote from 13s. 6d. to 16s. per oz.

COCA LEAVES.—Nineteen bales were offered to-day. For fine green bright 1l. 1d. to 1s. 2d. is wanted. Common old brown rubbish cannot be sold, even at 1d. per lb.

COCHINEAL.—There is a fairly steady demand at 10d. to 10½d. per lb. for fair to good silver and black Tenerife

COLOCYNTH.—Of 22 packages offered, 2 sold at 1s. 4d. for fair, partly boldish, but seedy and small mixed Turkey apple, while fair Spanish is firmly held at 1s. 6d. per lb.

COPPER (SULPHATE) tending lower; spot, 27l.; April, 26l.

COTO BARK.—The 8 serons mentioned in our last report are still on the market, and held at 3s. 6d. per lb.

CREAM OF TARTAR still declining; 93s. 6d. per cwt. was accepted for first white crystals on Wednesday.

CUBEBS.—Nine bales bold spurious berries were bought in at 28l. per cwt. to-day. The shipments from Java in 1888 were 148 piculs.

CUTTLEFISH.—For fair but broken palish Bombay 5½d. per lb. is asked.

DEER-TONGUE LEAVES.—Six bales of these leaves (*Liatris odoratissima*), which some time ago were said to be becoming popular as a substitute for Tonquin beans, were offered to-day. The price is 3d. per lb. The lot was imported in April, 1887, about which time samples of the leaves were sent to us by a Hamburg firm.

DRAGONS BLOOD.—There was a rather large supply at to-day's auctions. Of 28 cases, 2 cases fine bright fiery seedy lump sold at 9l. 17s. 6d., for good seedy block 7l. 10s. is asked.

ERGOT OF RYE.—Spanish is tending lower, being rather freely offered both here and from the producing markets. Of 16 bags shown to-day, 6 were sold, bold but dusty, at 1s. 3d. per lb., while for another lot that price was refused.

FENUGREEK SEED.—The price is well maintained at 8s. 3d. to 8s. 9d. for stony to good bright *Mogadore*.

GALBANUM.—True galbanum remains exceedingly scarce and dear. At to-day's auction 2 packages imported from Aden, and of very suspicious appearance, were bought in at 12l. per cwt. nominally.

GALLS.—A large quantity of Turkey galls was offered to-day, but the market is very dull, and no sales were made. Fair to good blue Bussorah, 58s. to 60s.; green and white, 42s. 6d. to 54s. per cwt. Cablegrams from China come again a little easier this week, viz, 57s. 6d. "c.i.f." terms, steamer shipment. We believe that a few days ago business was done at that rate.

GAMBIER is rather dull of sale, and at the drysaltery auctions a decline of from 9d. to 1s. per cwt. was established, Block selling at 25s. 6d., advancing to 25s. 9d. per cwt.; broken and loose, 22s. to 24s. 6d.; and Cubes—Free sound, 42s.; damaged, 40s. 9d. to 41s. 6d. per cwt.

[GAMBOGE.—The large quantity of 44 cases was offered for sale, and fully one-half sold at steady rates. For good bright selected pipe 13l. is wanted. Fair dry pipe, very slightly drossy, sold at 11l. 15s.; ditto part run, drossy, and damp, 11l. 7s. 6d. to 11l. 10s.; blocky pickings, 10l. 7s. 6d. to 10l. 15s.; very damp dull drossy pipe, partly run, 9l. 17s. 6d. per cwt.

GINGER.—The crop of ginger in China is said to have been only about one-half of that of last year, and it is therefore expected that the prices of preserved ginger will advance considerably as the season becomes older.

GLYCERINE.—The position remains unaltered at 67l. to 72l. per ton for double distilled s.g. 1,260. It appears that the "bear" party are trying very hard to depress the market

GUM ARABIC.—At to-day's auctions a case of small pale picked Turkey grains sold without reserve at 15l. 7s. 6d. per cwt., while for another parcel 17l. is asked. Egyptian Amrad of fine quality has sold, we hear, at 8l., and fine pale picked Brazilian at 72s. 6d. per cwt. Senegal gum has lately been offering at a not inconsiderable reduction in Bordeaux, but it is said that the quality of these offerings was not particularly good.

GUM ASAFOETIDA.—It is said that a peculiar adulteration of this article has recently been observed in Hamburg, where wholesale drug firms offered to their Swedish customers a gum in tears, which were composed of crystallised gypsum, coated with true asafœtida, the amount of adulteration varying from 20 to 80 per cent.

GUM BENJAMIN.—Of 319 packages, mostly Palembang gum, which were offered to-day, 83 were sold at rather cheaper rates—a decline of about 7s. 6d. on Sumatra and 7s. to 8s. on Palembang. Siam gum, small to medium, fair, part blocky grain, was bought in at 15l. 10s.; small blocky siftings sold at 10l. 10s. Palembang fair pale almondy, in small tins, sold at 61s. 6d. to 63s.; fair but woody, 45s.; for a lot of 100 cases low woody thirds 28s. would be taken. Sumatra fine white almondy seconds of good flavour, dark corners, 9l. 10s.; fair small almondy centres, 7l. 10s.; ordinary brown false packed thirds, 80s. to 82s. 6d.

GUM GUAIACUM.—Of 18 packages only 5 were sold, low dark and drossy block at 5d.; for fine brown glossy block, 2s. 4d. to 2s. 6d. is wanted.

GUM MYRRH is in large supply, and prices are easy. For 3 cases very fine bold selected 8l. is wanted, ordinary Aden picked is held at 6l. 5s. to 6l. 10s., and fair sorts are quoted at 87s. to 90s. per cwt.

HONEY.—The demand remains good, and prices are well maintained. At auction only a few lots were offered, good fine orange Jamaica, half candied to thin, selling at 36s. to 39s. 6d. per cwt. Fair to good pale hard Chilean, 37s. 6d. to 42s. 6d. Californian up to 48s. per cwt. for the best.

INDIGO.—Sales of Central American indigo were held this week, and resulted in a decline of 2d. per lb. on common, and a fractional decline on medium qualities, but good red sorts are selling at full rates.

INSECT-FLOWERS are firmly held, but there is no change in the quotations since last week.

IODINE and all the iodides are maintained at the recent quotations.

IPECACUANHA.—Thirty-two serons were offered to-day, the broker commencing by declaring that no bid under 7s. 9d. per lb. would be entertained, and that the Brazilian consignors anticipate raising the prices considerably. Nine serons sold at 4d. to 5d. advance on the last auction rates, viz. 7s. 11d. to 8s. for good stout, partly wiry and damaged, and 7s. 9d. to 7s. 10d. for fair qualities.

IRISH MOSS is getting very scarce, and holders require more money for the small quantity available.

JALAP very firmly held, and very few good parcels are at present available.

MARSHMALLOW ROOT is very dear and in strong demand, but it is thought that prices will give way again as soon as the mild weather sets in in Southern Germany.

MATICO.—Nineteen bales were offered to day, and all bought in, genuine but dark mixed leaves at 7d. per lb., 5½d. being refused.

MERCURIALS have declined 1d. per lb. all round, the basis being now 3s. 2d. per lb. for Calomel.

MUSK.—Several parcels of good Tonquin musk are offered, but although holders are very firm purchasers hold aloof as much as possible. To-day only one caddy first pile small to bold, thin blue skin and underskin, fairly dry, was sold at 95s. per oz., which is equal to, say, 1s. per oz. advance. Another caddy medium to bold old-fashioned pods, somewhat damp, top and underskin, sold at 85s. For good bold round Funan pods 50s. was said to be refused, while fair but rather damp Cabardine sold without reserve at 21s. to 23s. per oz.

NUX VOMICA.—Sixty bags dull small greenish *Calcutta* seeds are held at 7s. per cwt. Fair silky *Cochin* is worth 12s. to 12s. 6d. per cwt.

OIL (COD LIVER).—Reports from the producing districts still speak of very stormy weather and a most unsatisfactory catch, and it is added that, so far as the Lofoden are concerned, the fishing is already looked upon as a failure. Strange to say, however, though some of the importers fully maintain the price quoted last week, others are actually offering at lower rates, having come down to 80s. "c.i.f." terms for new non-freezing oil.

OILS (ESSENTIAL).—*Star anise*: Several parcels were shown at auction to-day, when 6s. 3d. per lb. was asked for good quality, but no sales were made. According to the latest mail reports from China the market there is quiet, but firm. *Cassia* oil: At the end of January the demand on the Hong Kong market was improving, and there had been a fair demand. The total shipments of essential oils from Hong Kong were 1,501 cases during the season 1888-9, against 1,965 cases the season before. None was offered at auction to-day, and the price remains unaltered. Of *Cinnamon* oil 1 case, much adulterated with leaf oil, sold at 2½d. per oz.; fair quality is held at 1s. 2d. per lb. *Citronella* dull, with enormously heavy exports from Ceylon. At auction to-day 20 cases were reported sold at ¾d. per oz. Of *Lemongrass* oil 426 cases have just been received from Cochin. From 1½d. to 1½d. per oz. was accepted for a parcel offered for sale to-day; for another lot a bid of 1½d. was refused. *Patchouly*.—Fisher's brand is held at 1s. 8d. per oz.; and *Nutmeg* oil of the same brand at 7d. per oz.; while ordinary Java sold at 4d. per oz. Japan *Peppermint* offers at 3s. 6d. per oz. Of HGH several lots were shown at auction to-day, and bought in at 14s. 9d., but we believe that 14s. 3d. has been accepted this week for a small lot. *Spearmin*.—HGH sold at 10s. per lb. in sale to-day. *Otto of Rose* held at from 17s. upwards. In Italian essential oils *Lemon* has suffered somewhat from the reported failure of one of the largest Sicilian firms in the trade, whose stock, it is thought, may be thrown on the market.

OILS (VARIOUS).—The following are some current spot quotations:—*Cocconut* neglected at from 27l. 10s. to 29l. for Cochin; 26l. 10s. for fine Ceylon, and nominally 26l. 10s. to 27l. for Mauritius. Newfoundland *Cod* oil, 21l. *Cottonseed* oil: Crude held at 22l. 10s.; refined continues dull at 24l. to 24l. 10s. *Ground nut* oil firm at all prices up to 40l. *Lard* oil quiet, English and American, 40l. *Linseed* oil, 18l. 10s. to 20l., according to quality and packing. *Olive* oil remains exceedingly dull. *Mogadore* offers at 31l. to 32l., but there are no buyers even at these low quotations. *Messina* and *Gioja* oils quiet at 35l., and Spanish nominal at 36l. *Petroleum* quiet; spot, 5½d. to 6d.; Russian, 5½d. to 5½d. *Palm* oil quiet at 25l. to 26l. for fine Lagos. *Rape*, brown dearer at 27l.; refined English, 28l. 10s. to 30l. Crude *Sperm* oil firm at 47l. to 50l. *Turpentine* dearer at 36s. to 36s. 3d. for American spirits.

OPIUM.—Nothing new on our markets. Favourable reports come from the growing districts, especially from Salonia, with regard to the growing crop.

ORRIS ROOT.—At to-day's auctions a cask of fine bold white, well-trimmed *Italian* orris sold at 47s. per cwt. "without reserve." In Italy there has been a strong upward movement, and prices have advanced, Florentine being now held at 38s. to 45s., according to quality.

POTASH SALTS.—*Bichromate* finds buyers on a moderate scale at 4½d. per lb. *Chlorate* dull and lower at 4½d. to 5d. on the spot. *Prussiate* tending higher; yellow is now held at 7d., and red at 1s. 7d. per lb.

PUMICE-STONE.—In Italy the market has become neglected and easier, owing to the large stocks held in various centres and at the point of production. Sorts to finest picked, 7s. to 16s. per cwt.

QUASSIA WOOD is higher in price. To-day 63 pieces (about 28 cwt.) sold with good competition at 7l. 2s. 6d. per ton, and privately there has, we understand, been a good demand for chips.

QUICKSILVER.—On Wednesday the firm of Rothschild made a fresh move by lowering their price to 7l. 10s., or 20s. per bottle. They are said to have sold 5,000 bottles at that figure, after which they again raised their quotation to

7l. 15s., and it appears doubtful what is really their selling price to-day. Meanwhile, second-hand holders have sold as low as 7l. 7s. 6d., and they still offer at 7l. 8s. 6d. The imports of quicksilver in February have been 15,798 bottles, the exports 8,973 bottles.

QUILLAYA.—250 bales were sold at Liverpool last week at prices rising from 12l. to 12l. 10s. per ton, closing at the latter figure.

QUININE, slowly but steadily easing off in price. At the close of last week the *Brunswick* agents accepted 1s. 2d. per oz. for forward delivery in bulk, and since then numerous transactions by second-hand holders of the same brand are reported at 1s. 1½d. to 1s. 1d. per oz. On Wednesday a firm of speculators are reported to have bought 30,000 oz. *Brunswick* from a second-hand holder at 1s. 1d., March delivery, and all kinds of reports are current with regard to the quantities—some say 250,000 oz.—which this second-hand holder is credited with intending to throw upon the market. The *B.S.* agents ask 1s. 2½d. per oz.; they might perhaps sell at 1s. 2d. per oz. Two thousand oz. *Zimmer's* quinine in bottles are reported sold at 1s. 4d. per oz. A firm, who are placed in a position to know the market very well indeed, write us to-day:—"It may interest you to know that it is said some of the very low prices at which quinine is stated to have been sold lately are forfeits paid to avoid delivery."

RHATANIA.—12 bales are held at 9d. per lb. for good bright woody, and 8d. for small and chumpy root.

RIUBARB.—A good demand prevailed to-day, especially for Shensi and Canton root, and of 73 cases offered 57 were sold at some advance. *Shensi*, medium to bold sound round, good coat and pinky fracture, with a little grey, at 3s.; bold flat fair coat and fracture, about one-eighth dark break, 1s. 8d. to 1s. 10d.; medium to bold, round, one-fourth dark fracture and horny, 1s. 7d.; better colour, but flat, 1s. 7d.; fair flat pickings, 1s. 1d.; good round ditto, 1s. 4d. per lb. *Canton*, medium to bold round, fair coat three-fourths pinky fracture, 1s. 4d.; ditto smaller and wormy, 1s. 3d.; small to medium round, part dull horny coat, one-fourth dark fracture, 1s. 2d.; wormy, 1s.; fair pickings, 11½d. per lb. *High dried*, small to medium, fair coat, flat, wormy, 10d. to 10½d. per lb.

SARSAPARILLA.—A few lots of *Jamaica* sold at low but unaltered rates: good grey, 1s. 7d.; brown and damaged, 1s. 5d. to 1s. 6d. *Guayaquil*, sound, 10d.; damaged, 9d. to 9½d. per lb.

SENEGA.—Rather weak. For 5 bales fairly good, somewhat dark root, 2s. 4d. was refused; another parcel being bought in at 2s. 8d. per lb.

SENNA.—The 291 bales offered to-day were all of very low quality. The highest price realised was 3½d. to 3½d. for medium to small greenish and yellow mixed *Tinnevely*; 2d. to 2½d. for dull ditto; and from 1½d. down to ½d. for low discoloured rubbish. A quantity of senna imported in 1868 sold partly at 1s. per bale; 1871 import, 1½d. to 2½d. per lb.; pods, 3½d. per lb. On the whole prices were a little easier.

SMILAX.—For 15 bales from Madras only 2½d. per lb. was bid and refused. Four bales damaged from Bombay sold cheaply at 3½d. per lb., subject to approval.

SANDALWOOD.—Seven bundles of good logs sold at the rate of 42s. 3d. per cwt., one bundle fresh pieces at 20s. per cwt.

SHELLAC has had a very eventful week; for while on Friday last the prices paid at the "call" were: for *Second orange*—TN, May, 61s. 6d.; June, 63s.; July, 64s.; *Garnet*—AC, March, 50s.; April, 50s. 6d.; the values had fallen on Monday to 60s. 6d. for TN, June; and 49s. for AC, March. Then came Tuesday's auctions, for which a very heavy quantity was catalogued, the total consisting of—

	Cases	Cases
Orange lac ..	1,354	of which 641 were sold.
Garnet ..	1,619	" 480 "
Button ..	450	" 26 "
Total	3,423	1,147

As compared with the prices ruling immediately before the auctions the tone was a satisfactory one, but there was a decided decline upon the quotations established at the previous Tuesday's auctions, the fall averaging 3s. to 5s. on

Orange, and 3s. to 3s. 6d. on *Garnet* lac. Most holders declined to accept the figures offered, and several appeared to be under the impression that they would be able to obtain better terms by-and-by. The prices actually accepted ranged as follows:—*Orange lac*.—Fine pale bright FOS, 70s.; out of condition, ditto, 65s., rising to 66s.; block, 59s.; good pale second orange, 60s. to 62s.; livery and fair parcels, 58s. to 59s., and ordinary dull, 56s. to 57s. per ewt. *Garnet lac*.—Good bright free AC, 49s. to 49s. 6d., a few lots falling to 48s. 6d., and one rising to 50s. A large parcel was held at the latter price, owners refusing to sell at less. Blocky AC brought 45s. 6d. to 46s., and fair cakey ruby OCC 47s. per ewt. A line of fine first *Buttons* was bought in at 105s., while for another parcel 95s. is asked. A few fair seconds sold at 82s. to 84s., and fair thirds at 72s. per ewt. At the "call" after the auctions an advance of 2s. to 3s. was established, followed by a large business at 10s. to 12s. advance on Wednesday, and a further rise to-day, the market closing very strong at the following rates:—*Second orange* TN March, 71s.; April, 73s. to 74s.; May, 72s. 6d., rising to 74s.; June, 74s.; July, 74s. 6d.; *Garnet AC* March, 57s.; April, 58s. 6d.; May, up to 59s. 6d. There appears to be no reason for this sudden turn save the feeling which is said to prevail that the recent decline was not justified by the position of the article.

SODA SALTS.—*Ash*, rather dull, London, 1½d.; Tyne, 1d., less 2 per cent. per degree. *Bicarbonate* steady at 5l. 2s. 6d. to 5l. 5s. *Caustic*, 60 per cent. cream, 6l. 15s.; 60 to 70 per cent., white, 7l. to 7l. 5s. *Crystals*, flat, 47s. London, 39s. 6d. Tyne. *Nitrate*, dull, at 10l. 15s. to 11l. 5s., according to quality.

SQUILLS.—Twenty bags of fair quality sold at 2½d. per lb., subject to approval.

STROPHANTHUS.—We hear that rather large quantities have recently been imported, and that good greenish seed of the new season is changing hands at 4s. per lb. At auction a lot of old and apparently wormy seed was bought in, the price being 5s. per lb.

TEA.—China market.—The deliveries for February have had a depressing effect on the Congon market, and Tuesday's sales went off very heavily. Common teas are unaltered, but fair second crop Panyongs sold cheaply from 5½d. upwards, while fair first crop Chingwo at 9½d. to 9½d. showed ½d. decline. New makes were cheaper than ever, really fine tea selling at 9½d. to 10d. A few first crop Monings, first and second hand, showed lower rates, but were mostly tarry and undesirable sorts. Fine Saryunes are getting scarce, and all that are left will be wanted for export, but so-called fine Soomoos are most difficult of sale, one parcel—counterpart sold at 1s. 1d.—realising only 8d. per lb. on Tuesday. Assams have been offered freely during the week, and though there has been rather more country demand, most of the dealers hold heavy stocks and are disinclined to buy. Ceylons steady at last week's rates.

TONQUIN BEANS.—Six casks fine bold *Angostura* beans were bought in at 6s. to 6s. 6d. per lb.; while one of duller quality sold at 4s. 6d. per lb.

VANILLA.—100 tins were offered to-day, but 69 of these were so highly limited that the holder withdrew them for the present. The remainder was mostly sold, good chocolate, 6½ to 8 inches, 17s. to 22s.; fair, 6 to 8 inches, 10s. 6d. to 15s. 6d.; brown and dull, 4½ to 5½ inches, 8s. to 10s. per lb. One tin fine soft chocolate beans, about 7½ to 8 inches, said to have been cured by a new process, sold at 19s. per lb.

WAX (BEES').—Only a few lots sold at high prices. Red *Jamaica*, 5l. 15s.; good grey Bombay, 85s.; dark and dirty brown in rolls from the Cape, 85s. 6d. per cwt.

WAX (JAPAN).—One broker refused 46s. for fair pale squares, while another sold a similar lot at 45s. per cwt.

SACCHARIN.—Brnylants disputes the assertion that saccharin is entirely voided by the urine, and is of opinion that it is not such an active anti-fermentative as has been alleged. Pepsin digestion is not disturbed by saccharin, whereas the fermentation of pancreatic fluids, which contain 1 per cent. of it, proceeds very slowly. He also confirms the fact that, taken as a medicine, it is harmless. For some considerable time he took daily doses of 3 grammes without the least injurious effect; it did not even interfere with the digestion.

LONDON DRUG STATISTICS.

The following figures refer to the stocks of the principal drugs in the port of London on February 28, 1889, and to the imports and deliveries from February 1 to February 28, as compared with the preceding year:—

Article	Stocks		Imported		Delivered	
	1889	1888	1889	1888	1889	1888
Aloes . . . cs & pkgs	7,197	4,698	851	437	613	157
" gouds	2,052	4,600	172	98	158	177
Aniso, Star . . ohts	142	201	40	25	37	5
Arrowroot . . . cks	10,583	13,328	1,685	2,662	1,981	2,297
" bxs & tins	6,767	7,446	59	648	1,162	1,248
Balsam . . . cks, &c.	393	429	—	9	24	189
Bark (Cinchona), S. American cases	505	—	5	—	6	—
" bls. &c.	34,307	—	900	—	658	—
E.I., Ceylon, and Java cks	1,372	—	431	11,296	47	10,800
" cases	24,764	—	11,773	—	7,825	—
Borax pkgs	581	487	—	—	37	—
Calumba . . . "	1,729	2,601	94	—	209	197
Camphor . . . "	338	1,801	—	1,662	591	1,240
Cardamoms . . ohts	931	996	569	648	196	375
Coccol. Ind. bgs, &c.	315	275	—	—	34	11
Cream of Tartar cks	11	13	8	—	10	—
Cubebs bgs	50	13	—	—	74	100
Dragon's Blood chts	107	99	51	31	24	31
Galls, China, &c. cs	1,571	4,009	167	2,772	721	547
Turkey sks	3,056	2,552	1,642	979	1,303	1,397
Gum—						
Ammoniac pkgs	121	225	6	5	10	16
Animi & Copal pkgs	4,881	4,435	1,339	1,989	1,343	1,968
Arabio "	23,043	11,311	8,183	3,489	4,580	3,453
Asafetida . . . "	265	521	3	125	86	57
Benjamin . . . "	2,160	1,492	545	529	371	568
Damar "	2,755	3,202	1,181	722	947	942
Galbanum . . . "	—	—	—	—	—	—
Gamboge . . . "	105	86	29	45	17	24
Guaiacum . . . "	12	59	—	3	4	23
Kino "	92	102	6	30	1	4
Kowrie tons	1,463	440	699	335	611	393
Mastic pkgs	46	113	19	12	4	4
Myrrh "	520	462	118	32	94	98
Olibanum . . . "	3,778	5,507	2,054	2,140	1,014	617
Sandarac . . . "	745	1,273	214	438	218	214
Tragacanth . . "	6,071	3,398	1,911	2,493	1,576	999
Indiarubber, E.I. tons	311	282	51	67	74	39
Madagascar . . "	69	53	62	41	18	12
S. American . . . "	86	119	72	58	38	59
African, &c. . . . "	560	680	114	262	132	181
Ipecac. casks & bags	61	62	125	24	92	120
Jalap bls	74	143	—	—	13	3
Lac Dye chts	5,854	6,920	—	—	26	245
Myrabolans . . tons	7,808	9,761	1,567	1,215	1,417	1,999
Nux Vomica pkgs	1,051	319	16	224	92	451
Oils—						
Anise cs	98	55	111	40	21	37
Cassia "	52	172	63	60	29	51
Castor cks	156	820	67	93	87	148
" cs	5,028	10,166	369	4,393	2,349	1,742
Cocoa-nut tons	1,494	1,812	711	726	697	736
Olive cks, &c.	665	888	582	451	287	244
Palm tons	32	250	21	55	51	12
Opium chts, &c.	1,634	1,886	170	87	153	306
Rhubarb chts	1,020	987	235	147	238	274
Safflower bls	572	303	—	—	18	56
Sarsaparilla "	331	546	231	304	286	179
Senna bls, &c.	1,725	2,350	446	598	612	725
Shellac, Orange chts, &c.	44,534	48,226	3,617	11,937	5,569	5,673
Garnet "	14,138	16,847	—	2,370	1,071	704
Buttons "	6,284	10,734	624	859	2,147	1,243
Total chests	64,956	75,807	4,241	15,136	8,787	7,620
Sticklac cks, &c.	3,851	4,730	427	401	403	62
Gambier tons	1,322	1,279	1,691	1,873	1,526	2,432
Cutch "	3,670	2,139	1,013	1,669	601	473
Turmeric "	3,222	2,639	101	165	106	158
Vermilion, ohts, &c.	35	47	57	10	34	26
Wax, bees' . . . bls & srns	501	748	88	28	113	92
" cks & cs	1,335	1,518	726	228	519	401
" cakes	17	42	—	24	—	—
Wax, Japan . . . pkgs	1,120	1,180	1	540	321	272

FOND MOTHER: "Jane, give the baby some claudannum and put it to sleep, and bring me my parasol. I am going to a meeting for the amelioration of the condition of the human race."



Memoranda for Correspondents.

Always send your proper name and address; we do not publish them unless you wish: if you do not, please use a distinctive nom-de-plume.

Write on one side of the paper only; and devote a separate piece of paper to each query if you ask more than one, or if you are writing about other matters at the same time.

If you send us newspapers, please mark what you wish us to read.

Ask us anything of pharmaceutical interest: we shall do our best to reply.

Before writing for formulæ consult the last volume, if you have it.

Letters, queries, &c. will be attended to in the order received.

Medicine-stamp Grievances.

SIR,—As the outcome of the meeting of chemists recently held in Newcastle to consider the numerous prosecutions under the Patent Medicine Act, the committee is desirous of obtaining particulars of proceedings under the same Act in other parts of the country. They should also like to receive information as to labels which have been held liable or not liable by the authorities, but in regard to which the owners are doubtful either way. As hearty and united action is desirable where the interests of all are concerned it is hoped the trade will respond.

Communications may be addressed to the chairman, Mr. B. S. Proctor, Grey Street, Newcastle-on-Tyne.

[Faithfully yours,

GEORGE WEDDELL.

SIR,—The recent vexatious interference of the Inland Revenue Board with the legitimate business of chemists is of a character which, if permitted to go on, must ultimately undermine such business, and transfer it to the vendors of quack nostrums and secret, and, in many cases, deleterious, mixtures, which need no technical or scientific knowledge to invent.

According to the construction put upon the Act by the Board a chemist must not exercise the privilege of other manufacturers by claiming that his seidlitz powders or cod-liver oil are even "genuine," or give the uses of ordinary pharmacopœial medicines, while on the other hand evasions are allowed which clearly come within the law. Thus, "Himrod's asthma cure," "Clery's anti-asthmatic powder," &c., are not held dutiable (simply because they are administered by inhalation), neither are "Embrocation for neuralgia," "Liniment for rheumatism," &c. Smith may crowd his window with a secret preparation labelled "Liniment for rheumatism," which it may be impossible for Brown or Jones to make up; while, if Robinson offers a remedy in which all secrecy is destroyed by the addition of a pharmacopœial name, as "Bryonia liniment for rheumatism," which any chemist can prepare from the published formula, the Inland Revenue Board consider it dutiable, "inasmuch as it implies that the preparation is a specific for a certain disease."

Again, as to a plain statement of the uses of pharmacopœial medicines, "Diarrhoea mixture" may be freely sold without duty; but if Robinson prefers to put up a preparation labelled "Spirit of camphor, P.B., used in cases of diarrhoea," a duty is insisted upon which may be evaded by purchasing the identical preparation from another chemist.

Now all this inconsistency is brought about by the refusal of the Board to recognise the force of the exemption, "all medicinal drugs" vended entire without admixture by any suitable person "who hath served a regular apprenticeship," &c., the words "medicinal drugs" being evidently intended in their wide popular sense as defined in most dictionaries, the word "drug" being the general name for any ingredient used in physicians' prescriptions, and officially recognised and described in some Pharmacopœia.

Further, we maintain that it is part of the business of every qualified chemist to give information to the public as

to the uses and properties of pharmacopœial medicines without rendering them dutiable (a fact which the Board has never disputed provided such information were not printed or written), and they have no right whatever to construe a simple statement of this kind, when printed, into the holding out and recommending as beneficial which the Act contemplates, and which invariably accompanies secret medicines.

We believe that, although a magisterial decision might be obtained in favour of the Board's action in this respect, yet, if the case were taken to the House of Lords, such a misconstruction would not be allowed. Chemists should combine to maintain their privileges in this respect, and if all other legal means fail an appeal to the public through the newspapers would probably enable them to get an amendment to the Pharmacy Bill passed securing the rights we advocate.

The circulation of such information to remind the public of the uses of official domestic medicines, well known, though not universally, would be an effectual check on the rapidly-growing disposition to fly to deleterious quack specifics, and would in a measure restore to the chemist his legitimate business. Of course the revenue would not gain by it, but the public would do so very considerably.

Yours faithfully,

59 Moorgate Street, E.C.

E. GOULD & SON.

SIR,—The excellent letter by Mr. Barnard Proctor in your last issue, and the other correspondence relating to the same matter, induces me to ask you to allow me to make a few remarks thereon. There is undoubtedly a great obscurity as to the liability or non-liability of a great number of proprietary articles, and it would appear only reasonable, when the case is not clear and unmistakable, that a caution should be given by the Board of Inland Revenue prior to fining or prosecuting for infringement. But unfortunately this is not so; the Board interpret and decide according to their good pleasure, and graciously inform the unhappy victim that if he will remit the sum they name, from one to several pounds, they will forego proceedings. Of course not one in a hundred will venture to enter into litigation with them, so they pay the fine with an abiding feeling that a gross extortion has been practised upon them. The letter received from the Board by Mr. G. F. H. Bartlett will surprise the trade generally (as there will hardly be one who will not be liable). It appears from this that the Board decrees that labels headed "Strong seidlitz powders" and "Genuine seidlitz powders" renders them liable to duty. How such a decision could be arrived at in face of the non-liability of Lamplough's saline and Eno's fruit salt is beyond comprehension; besides, it is in direct contravention to one of the exceptions of the Act, viz. "All artificial mineral waters and all waters impregnated with soda or mineral alkali, or with carbonic acid gas, and all compositions in a liquid or solid state, to be used for the purpose of compounding or making any of the said waters." The Board are evidently not acquainted with the existence of a seidlitz spring.

It is obvious that if the Board are allowed to exercise this despotic power, and assert that Rubini's solution of camphor is liable, and show it by levying a fine on Messrs. Gould & Son, surely Goulard's extract, Fowler's solution, friar's balsam, Gregory's powder, Dover's powder, &c., are on all fours; and the question arises, How are these arbitrary and despotic encroachments to be stopped, and the anomalies in this antiquated law remedied?

What an absurdity is the non-liability of powders for whooping cough or asthma which are administered by fumigation! Quoting from the "Board's General Observations," "Such preparations are not regarded as used or applied externally or internally." What sapience is displayed by such a dictum! Again, a soap recommended for the cure of skin diseases is not liable, but an ointment for the same purpose requires a stamp.

It may be said the difficulties may easily be overcome by affixing a stamp, but I ask, Is it reasonable to expect that we should charge our customers 12½ per cent. more for our articles, or mulct ourselves of a corresponding proportion of our profits? Personally, I object strongly to degrade my preparations to a level with patent medicines.

The Board appear to exercise a dispensing power which

makes their decisions most bewildering. Such a condition of things should not be allowed to exist; no other trade would tolerate it, and the inquiry comes naturally to our mind, What is the Pharmaceutical Society, which should represent and uphold our interests, intending to do? The Council should bear in mind that the primary condition of our existence is to live, and then we shall have leisure and means to carry out curriculum, &c.

Personally, I agree with Mr. Proctor that the most satisfactory proceeding would be to wipe out the Stamp Acts altogether.

I hope meanwhile such a movement of the trade will be inaugurated on this burning question, that the Council will awake to the fact that the opportunity has now arisen for it to give us value for our money. The Council is our mouth-piece and executive, it possesses the organisation and the means for taking active measures on our behalf, and nothing it could do would more invest it with importance, not only to the members of the Society, but to the trade generally; while continued supineness will bring upon it merited contempt and neglect.

R. HAYTON DAVIS.

SIR,—There are two or three points in the correspondence published in your last issue that I should be glad to emphasise; and first let me thank Mr. Proctor for the ability and courage with which he has treated our *bête noir*, the patent-medicine question.

Last May, or perhaps May twelvemonth, I was listening to the address of our worthy President, in which he eloquently championed the Board of Inland Revenue. "Doubtless a good policy," thought I, "to keep in with the powers that be, but I fancy there are several present who are smarting under a sense of injustice that even Mr. Melville's politeness has failed to remove;" and just at the moment one of our best known pharmacists tapped a gentleman in front of me on the shoulder with the remark, "That is all very well, but we know this Act has been most arbitrarily enforced." I consider my own experience a case in point. I had put up a chilblain liniment, and the label, a stock one, bore the words "An effective remedy." A woman came into my shop, purchased a bottle, and a few days after I received the usual official notice. Finding I had unwittingly broken the law, I explained the matter, and ultimately paid a mitigated penalty of 10s.

Now, to begin with, it is clear the law up to this time had been enforced with the greatest laxity; for the very label printers had sent this label out for years without complaint, and had not the ghost of an idea they were exposing their customers to any risk. One would, therefore, have expected an official notice or warning would first have been issued drawing attention to the Act, and to the laxity with which it had been observed and enforced, thus giving the unsuspecting chemist a chance of complying with its provisions, so far as he could understand them. I found the Board were possessed of tremendous powers, by which their decisions could be enforced and opposition crushed. I could challenge their decision, appear before a magistrate, and win my case with the certainty that an appeal to the higher courts would result. But however justified a man may be in risking his all in the cause of liberty or patriotism, where is the sane man who would risk that all to decide on what grounds tweedledee differs from tweedledum, or why the Revenue may tax an article known as "Smith's Expectorant Lozenges" which may be sold untaxed as "Expectorant Lozenges (Smith)," the income annually derivable from the sale of the said lozenges being a trifle under twenty-five shillings? On the principle, therefore, that "it is better to bear the ills we have than fly to others we know not of," I and hundreds of others paid our fines, and, even had the Board been empowered to inflict a short imprisonment, plus the plank-bed, some would doubtless have submitted to their fate rather than face the alternative risk. Seriously, I think the powers at present enjoyed by the Board—which is, as Mr. Proctor says, at once the prosecutor, witness, judge, and jury—should be curtailed, that when we break the law we should be answerable to a magistrate for the offence, and that the magistrate's decision in the case of such trivial technicalities should be final, at least as far as the Board's action is concerned; otherwise might is synonymous with right.

116 Denmark Hill, March 4.

T. H. POWELL.

The Pharmacy Bill, 1889.

1/6. *Spectemur Agendo*.—We do not understand your letter. The Bill promoted by the Pharmaceutical Council would not, we think, "throw hundreds of men out of employment because they cannot afford to pay for a pharmaceutical examination." If there are such, they ought to have thought of that difficulty before they entered the trade. Then, again, this same correspondent is absolutely mistaken when he charges the Council with introducing a clause requiring all managers of branch establishments to be duly qualified. This is precisely the clause which the Council refuse to adopt. They are entitled to this gentleman's gratitude, not to his criticism.

Mr. T. H. Powell, 116 Denmark Hill, writes:—"With regard to Mr. Ellwood's letter, may I ask him first to inquire if every member of the Pharmaceutical Council is not individually as seriously affected by the present revolution in trade as he is himself. Having satisfied himself on this point, he might consider that these gentlemen may certainly be trusted to attempt the best possible course of action under the circumstances, if only for the sake of their own pockets. By all means call a meeting of the trade, and endeavour in every way to promote a union, without which little success can be expected; but I would suggest that should such a meeting be held our President should be invited to attend, and that an attempt should be made to bring about a compromise that would secure the support and ultimate benefit of all concerned. Further, cannot the suggestion of 'H.' be put into some practical form? Surely the Pharmaceutical Society would gladly be rid of their police duties, and thereby more free to advance the cause of education unhampered by legal duties and cares. Meanwhile who will suggest a more efficient substitute?"

The Half-price Postage Closed Letter Company (Limited).

Sem. Card. (48/260) and *W. S. G.* (53/69) write to us about this company, which does not seem to have yet commenced operations, though they assured us about three months ago that they should be ready to supply agents during January. They now state that the difficulties raised by the Post Office and Somerset House have occasioned the further delay, the exact form of envelope to satisfy the authorities being still undecided. They say their factory is kept waiting all this time, but they hope to start quite soon.

Checking the Drawings.

SIR,—I should like to hear from the readers of your journal what system is in most use amongst chemists for checking or taking a note of each day's retail drawings; whether any have adopted Loft's check-till, and what they think of it as compared with any other.

Yours,
B. (247/49.)

Trade Prospects.

SIR,—One is always gratified to see a man make a name for himself and a sale for his goods by sheer force of energy, skill, and wit. I hold that to do this it is "not proven" that a man must necessarily spend a large sum in obtaining publicity. A few days ago, visiting a Western city, and making inquiries as to how my brethren do, I found three or four enjoying a considerable reputation for articles of their own make—one a dog-medicine, another a shaving-cream, a third a toilet article. Each article is what may be expressed by the word "handy"—saleable, and costing but little to make. As a practical tradesman, I should be very pleased to see published in your valuable journal suggestions for a number of articles which retailers with time on their hands may make and sell. Not for myself, because my own time and the capacity of my staff are fully occupied. I think the time has arrived for every chemist to be his own manufacturer; and thus, as far as possible, leave in the lurch those wholesale firms who make for the stores.

Yours truly,
HEDER.

Medicine and Pharmacy.

Mr. J. Barker Smith, L.R.C.P., of High Street, Dulwich, S.E., writes:—"The examinations of the Pharmaceutical Society are worthless for medical curriculum and examination purposes, and yet they represent in themselves one of the most real properties that could be claimed in any community by the individual—the property of his personal effort. The examination in arts at the Apothecaries' Hall is a good one, costing a single guinea. Algebra and geometry are as much required in pharmacy as in medicine; their universal adoption would have prevented that excessive jealousy between trade and profession, and would, moreover, lead to the advancement and unification of medicine. Further, it would not be at all difficult to secure for the different medical examinations and classes in the curriculum a full recognition of all pharmaceutical subjects, provided such had been studied up to a certain standard, and during a period not too remote, and verified by examination. This would enable a pharmacist to economise his pecuniary resources at the hospital, and allow him to devote a longer period to the study of surgery and medicine. No one would wish to shorten the medical curriculum, especially now when men are devoting their lives to the science of sanitation alone." [Already, we may point out, the pharmaceutical Preliminary examination is recognised to the full by the Medical Council, the Society of Apothecaries, and other examining bodies. It would, as Mr. Barker Smith says, be immensely advantageous if licensing bodies would recognise the Minor certificate as proof of the candidate's knowledge of chemistry, materia medica, and pharmacy. The Pharmaceutical Society ought to move in the matter.—ED. C. & D.]

A Soberer.

SIR,—I think that the action of ammon. carb. as a soberer is hardly understood by "Heather Blend" when he compares it with what is practically a solution of ammonium acetate. If he would try it in solution in water, well diluted, and not in combination with acetic acid, he would find its action a quick and stimulating emetic, emptying the stomach of any "blend" as effectually as the old favourite, 2 grs. antim. tart., without its depressing action. It is not anything new, but has been recommended in some text-books for years.

The writer, when an apprentice, had frequently to prepare emetic powders of pulv. ipecac. and ammon. carb.

ADELAIDE.

DISPENSING NOTES.

The opinions of practical readers are invited on subjects discussed under this heading.

Was the Procedure Justifiable?

I hardly think that "Brum" was justified in making such a change in the prescription; not, at least, until he had tried making it up, not "literally," but *see. artem.* If he had rubbed up the hydr. c. creta and magn. carb. along with about 10 grs. pulv. tragacanth, or an equivalent of p. trag. co., he would have found it quite miscible—at least shakeable. It is always advisable to consult the prescriber or the previous dispenser, as the case may be, before such a departure from the prescription, as "Brum" adopted, is made.

ADELAIDE.

Suppositories.

SIR,—In your last issue "Omega" was asking how he should dispense the suppositories containing $\frac{1}{24}$ grain of atropia sulph. I may say that I had to make some the other Sunday morning:—

Atropine sulph.	..	..	..	gr. $\frac{1}{24}$
Morph. hydrochlor.	..	..	..	gr. $\frac{1}{8}$
Piat suppos. M. t. xij.				

I proceeded to weigh out $\frac{1}{2}$ of a grain of atrop. sulph., and having a pair of very delicate scales (Becker Sons, Rot-

terdam), which turn to $\frac{1}{150}$ of a grain, indicated by a long needle and a white plate, I got a very satisfactory result (the scales are supplied with weights down to $\frac{1}{60}$ gr.), thus enabling them to be made without any foreign matter whatever.

I am, yours truly,

WERDNA. (260/47.)

A Strong Mercurial Ointment.

SIR,—When I had to dispense the above I adopted the official dodge for emplast. hydrarg., *i.e.*, used about 3j. balsam. sulphur, which immediately extinguished the 5 oz. of mercury. I should not have felt justified in introducing this excipient, but it appeared to me impossible to extinguish that quantity of mercury with 3ij. of ung. hydrarg.—and pardon me if I still doubt it—unless there is some occult virtue (unknown to me) in burning S.V.R. in the mortar, beyond merely warming it, which might be more economically done with a little hot water.

The proportion of ointment in the (p. 193) formula is nearly four times that said to be sufficient (p. 279) to do it in about fifteen minutes. With balsam. sulph. it does not need five minutes; but of course its use would be a point on which some would differ from,

Yours truly,

J. P. C. (260/38.)

Incompatibles.

SIR,—I recently had the following prescriptions handed me to dispense:—

Tinct. nuc. vomic.	..	..	..	..	3j.
Ammon. mur.	..	..	..	..	3j.
F.d. ext. ergot.	..	..	..	..	3ij.
Inf. calumb.	..	..	..	..	3vss.
Acid. tannic.	..	..	..	..	9j.

M.

S.: Coch. med. ter in diem.

Tr. cinch. co.	..	..	..	..	3j.
Quin. bisulph.	..	..	..	..	5ss.
Ammon. bicarb.	..	..	..	..	3ss.
Aque ad	..	..	..	..	3vj.

M.

S.: A tablespoonful every four hours.

Will you tell me, through your journal, how to dispense them to make presentable mixtures? I called the doctor's attention to them, and he said they were as he wanted them, and to put a "shake" label on each bottle and send them out.

Respectfully,

NEMO. (260/55.)

[The dispenser has scarcely a choice in the matter after the doctor has so specifically stated that he wishes the prescriptions dispensed as written. It would have been advisable, however, to tell him that the addition of a few drachms of mucilage would materially assist in apportioning the doses. Otherwise, the following procedure gives the best results:—In the case of the first mixture, dissolve the ammonium hydrochlorate in 3 oz. of the infusion and add the tincture and fluid extract to this, dissolve the tannic acid in the rest of the infusion, add to the other portion in a thin stream, and mix. Second mixture: Rub the sulphate of quinine to fine powder, mix with 3 oz. of water, and add the tincture. Dissolve the ammonium carbonate in 2 oz. of water, and add to the first portion. If 2 drachms of mucilage of acacia are not added to this mixture the alkaloids adhere by-and-by to the bottle. The mucilage should be mixed with the first portion of the mixture.]

260/41. *Devon.*—We think there is no doubt that the third ingredient of the prescription is "liq. cinch. flav. 3ij."

LEGAL QUERY.

24/230. *Scidlitz.*—We presume the father was a party to the indenture. If so, you can sue him for such damages as you can prove, and also for the balance of the premium when it falls due. You should give him notice that you intend to do this; but you had better previously submit the indentures to a solicitor, to be sure that your case is a strong one.

MISCELLANEOUS INQUIRIES.

A large number of correspondents ask us for formulae and other information already published in this journal. It is not fair to more careful readers that we should frequently repeat such information, and so long as the back numbers containing the formulae or replies required are in print we must decline to do so. Back numbers of our weekly issue can be obtained from the publisher at 4d. each.

Correspondents who have made inquiries regarding the following subjects will find the information in the numbers indicated.

Fire-grenade Solution.—September 29, 1888, page 456.

Lime-juice and Glycerine.—No. II. formula, DIARY, 1888, page 170. Use 16 oz. instead of 6 oz. of nut oil.

Himrod's Asthma Cure.—December 8, 1888, page 803.

Bronze Paint.—November 12, 1887, page 628.

254/17. *Omega*.—Read our issues of September 22, 1888, and February 9, 1889 (page 202).

254/43. *Antipyrin*.—See recipes from the "National Formulary," August 5, 1888, page 157.

255/62. *Stanley*.—The hands or a wooden press will serve for expressing the marc of *Acetum Scillæ*. Metal presses should not be used.

Dubio.—**Society of Apothecaries' Arts Examination**.—Candidates who pass in any of the subjects of this examination do not require to take these subjects in any subsequent examination. A fee of one guinea has to be paid for every examination, and the subjects may be taken together or separately. A fresh fee has to be paid each time the candidate is examined. The regulations state that "no subject is required to be taken up again in which a candidate has passed before any examining body recognised by the Medical Council." This means that those who have passed the pharmaceutical Preliminary examination do not require to take the papers in English, Latin, and arithmetic. The next examinations will be held on June 7, 8, September 6, 7, and December 6, 7. Application should be made and the fee paid fourteen days beforehand to Dr. T. Peregrine, secretary to the Board of Examiners, Apothecaries' Hall, Blackfriars, E.C.

255/68. *Solanaceæ*.—Moles can only be removed from the skin by a surgical operation or by vaccination. Patches of hair can be permanently removed by the electro-cantery.

193/41. *X. Y. Z.*—**Liquid Dyes** are solutions of aniline dyes, most of which are soluble in water.

255/53. *Eruv*.—You may substitute any other perfume than winter-green for the tea-berry dentifrice—neroli and a little rose, for example—and your customers are not likely to quarrel with the name.

256/4. *T. J. Wilkes*.—(1) We have never observed the precipitate in glycerin. aluminis, but presume that it is hydroxide of alumina. (2) **Estimation of Ext. Nucis Vomiceæ**.—The extract is treated with sodium carbonate solution to free the alkaloids from the natural acid; the chloroform takes up the alkaloids with some resinous matter, fat, &c., and the subsequent treatment is for the separation of the alkaloids only.

256/34. *H. Land*.—The questions given in the Preliminary examination are regularly published in this journal.

254/49. *A. N. W.*—**Lapis Divinus** is composed of 50 parts each of alum, sulphate of copper, and nitrate of potash, and 1 part of camphor. These are fused together.

Julius Fehr's Compound Talcum Baby-powder.—In reply to 240/17, a correspondent says:—"Julius Fehr was—and may be yet—a pharmacist at Hoboken, now Jersey City, opposite New York, across the North River. His powder is obtainable of most New York wholesale druggists, and might probably be procured through Messrs. Burroughs & Wellcome.

Ol. Succini Rect. (in reply to 244/40).—Mix Oj. of oil of amber with Ovj. of water in a glass retort, and distil over Oiv.; then separate the oil from the water, and keep it in well-stoppered bottles.

FACTA NON VERBA. (244/40.)

Indestructible Ink for Marking Wool, &c. (in reply to 241/50).—Two solutions are necessary.

No. 1 Solution.

	Parts
Crystallised chlorid. copper	8.5
Sal ammoniac	5.3
Chlorid. soda	10.3

To be dissolved in 60 parts of distilled water.

No. 2 Solution.

	Parts
Aniline hydrochloric	20

To be dissolved in 30 parts of water, to which has to be added 20 parts of solution of gum, made by dissolving 1 part by weight of gum in 2 of water; and, lastly, 10 parts of glycerine.

These solutions are kept in separate bottles. When it is required to write anything with the fluids, 1 part by bulk of No. 1 solution is mixed with 4 parts by bulk of No. 2. The ink must be applied with a quill pen or small brush.

FACTA NON VERBA.

256/8. *Bertha*.—(1) We named several books on nursing in our issue of February 2, page 178. Probationers are taken at most of the London hospitals, either with or without a premium according to the demand. (2) "The Nursing Record," published by Sampson Low, Marston, Searle & Rivington, weekly 2d., is an excellently conducted journal for nurses.

256/14. *H. F. S.*—**Mithridate**.—This is the *Confectio Damocratis*, Ph. 1746, a very complex compound. It is now represented by a more simple preparation, of which the following is the formula:—

Pulv. bacc. lauri	3j.
" pip. long.	3j.
" " carui	ss.
" sem. anisi	3ss.
" gentian.	3ij.
" curcumæ	3ij.
" valerianæ	3j.
" acaciæ	3ij.
" zingib.	3j.
Bole	q.s. to colour

Mix.

256/28. *Mortar and Pestle*.—You can make phosphate of quinine from the sulphate as follows:—Dissolve the sulphate in a sufficiency of water, and dilute sulphuric acid; precipitate the quinine with ammonia added in excess, and agitate with chloroform or ether (the latter is the cheaper). When the layers have separated, decant the ethereal one, and agitate with its own volume of water acidulated with as much dilute phosphoric acid as will saturate the quinine. Draw off the aqueous portion, and evaporate carefully to dryness. This is an outline of a process which you can carry on with little difficulty. Of course second or even third washings with ether and acid-water would be advantageous.

27/200. *S. B.*—The quantity of nut oil in Formula 11. for "lime juice and glycerine," DIARY, page 170, should be 16 oz., not 6 oz., as printed.

48/252. *Nylonite.*—Our advertising pages answer your first inquiry. For invisible ink use solution of chloride of cobalt.

61/253. *Spitful.*—The question is one which should be referred to a medical practitioner.

15/256. *J. P. A.*—The sale of vermin-killers need not be registered unless they contain strychnine, arsenic, or other poison named in the first part of schedule. We do not make out the name of the particular article you refer to. Law's "Farmer's Veterinary Adviser," 7s. 6d. (MacLachlan & Stewart), is likely to suit you. Fannin & Co., Dublin, will probably supply the list. You will find what you require among our advertisements; if not in the weekly numbers, refer to the DIARY.

In reply to 246/32 as to a treatise on hygiene, *Heder* recommends "The Seven Sources of Health," by W. Strange, M.D. (Henry Renshaw, 356 Strand. 2s. 6d.)

39/257. *A. B.*—There is a column in THE CHEMIST AND DRUGGIST DIARY, 1889, page 278, which expounds the metric system perfectly. If you master that, and then practise conversion of English weights and measures into metric ones and *vice versa*, you will understand all there is to be understood about it.

257/60. *A London Subscriber* has upset some **Glycerine**, and wishes to know how to filter it. Dilute it with its own volume of water, filter, and reserve for "glycerine and rose water."

257/13. *Russia.*—We have met with factitious **Birch Oil** or **Tar**, which consisted of spirit of tar with a little perfume. It did not at all resemble true birch oil (*Oleum Rusci*), which is made in Russia, and may be obtained from Mr. Thomas Greenish, 20 New Street, Dorset Square, N.W.

257/40. *R. T.*—A mixture of solution of soda and methylated spirit should remove any lacquer from a tinned surface. Let the lacquer steep in the mixture for some time.

257/29. *W. J. C.*—The solution of camphor in turpentine is the best thing we know of for assisting a steel drill in **Boring Glass**. The slowness is owing to the slow revolution of the drill by the hand.

258/30. *G. W. J.*—**Essential Oil Bottles.**—Soluble glass is impracticable as a label varnish. You should get bottles with burnt-in or recess labels: but why pour the oil by the front? If you made it a rule to pour from the back of the bottle, the labels would never be spoilt.

257/27. *Cherry Blossom.*—Hard paraffin, m.p. 122° F., may be used for ointments, but not that melting at 102°. The latter would be most suitable for washing-blocks, but the former is the purer. Wholesale parcels of paraffin and crude castor oil can be bought through any of the houses advertising in this journal. Try Price's Patent Candle Company for the former. We have not met with any adulterants in white petroleum jelly. It may be made with unrefined mineral oil and hard paraffin, which can be detected by the nose and fingers.

256/70. *W. H. H.*—Considering the source it is not surprising.

257/2. *E. B.*—The following is the formula for **Bow's Liniment** generally used in Scotland:—

	Oz.
Opium	2½
Soap	1½
Comp. camphor liniment	20

Macerate seven days, press, and filter.

The marc contains nearly all the morphia of the opium, as the menstruum dissolves but little. Recognising this, the B.P.C. Unofficial Formulary gives the following, under the title **Linimentum Opii Ammoniatum**:—

	Oz.
Soap liniment	6
Compd. camphor liniment	6
Tincture of opium	6
Belladonna liniment	1
Stronger solution of ammonia	1

Mix, allow to stand for a few days, and filter.

255/25. *Give and Take.*—**Furniture Cream** (DIARY, page 260).—There is, if anything, too little water in the formula, and it is always well to make up to 120 parts with water at the finish. Any good household soap may be used, but the directions may require modification. Some prefer soft soap to white soap, as that always gives a better emulsion with turpentine.

214 38. *J. A.*—**Worm-powders for Horses**:—

Sulphur	2 drachms
Areca nut	2 "
Tartar emetic	½ "
Santonin	½ "
Powdered croton seeds	½ "
Ginger	2 "
Common salt	1 oz.

Make a powder.

A powder to be given twice a week. If the bowels are regular omit the croton seeds, and replace with 20 grains of calomel.

256/24. *S. Heckscher.*—The **Vulcanite** used for **Dental Purposes** consists of caoutchouc, 44 per cent.; sulphur, 22 per cent.; and colouring matters (vermilion, oxide of zinc, white clay, and lampblack), 33 per cent. The pink rubber for the gums consists of caoutchouc, 43.5 parts; sulphur, 21 parts; and vermilion, 9 parts; a sufficiency of oxide of zinc being added to bring it to the desired colour. The hardening process occurring during the process of making artificial dentures is carried out in the boiler or vulcaniser. The change is simply a combination of the sulphur with the caoutchouc (not a removal, as you suppose). On this point Hunter says:—"When caoutchouc is mixed with from 2 to 10 per cent. of sulphur, and heated to 270° and 300°, it undergoes a change: it acquires new characters, its elasticity is greatly increased, and is more equable. It is not affected nor is the substance altered by cold; no climate effects a change; heat scarcely affects it, and when it does, it does not become sticky and a viscid mass. If it yields to a high temperature it is to become harder, and will ultimately yield at the advanced temperature to char and decompose." You will find full details as to how the process is carried on in Hunter's "Mechanical Dentistry" (Crosby Lockwood, 7s. 6d.).

Information Wanted.

[Replies to the following requests are solicited by correspondents of THE CHEMIST AND DRUGGIST.]

250/67. Formula for liq. ammon. valerian.

256/28. Name and address of good maker of benzine.

250/70. What are balur drops? "Used in cattle oils in Hull," our correspondent says.

253/3. Bristol salts. Composition or name of maker.



SHOP BOTTLES & JARS

WITH VITRIFIED (burnt in) LABELS

(Black Letters on a ground of Pink or White Enamel).

Labels indestructible and of elegant appearance, forming an even surface with the glass or porcelain. The Jars of best porcelain, thoroughly greaseproof. The Bottles hand-made and of superior quality. Both are unsurpassed by anything in the market in every respect. Also a CHEAPER sort of Bottles and Jars, with labels equally indestructible, but very plain, especially suitable for Dispensaries, &c. Intending Buyers are requested to inspect Samples at

H. POTHS & CO.,

4 CREECHURCH LANE, LEADENHALL STREET, E.C.

A large number of Shops have been fitted up with these Bottles and Jars, both in England and the Colonies, a list of which can be had on application.



LATEST NOVELTIES:

POISON BOTTLES of Ribbed Blue Glass, with RAISED White Vitrified Letters, and the Word "POISON" in Red at foot. **DRAWER LABELS** of Crystal Glass, with Bevelled edges and Vitrified Labels to match the above Bottles and Jars. **A STANDARD LIST OF LABELS** for Chemists' Shop Bottles, Jars, and Drawers will be sent free on application.

A Stock of small sets always on hand.

TELEGRAPHIC ADDRESS: "POTHS LONDON."

[1]

PURE OXIDE OF ZINC (HARRIS'S)

SPECIALLY PREPARED FOR PHARMACEUTICAL PURPOSES.

PHILIP HARRIS & CO., LIM., Manufacturing Wholesale and Export Chemists, **BIRMINGHAM.**

PRESENTED GRATIS!! A FAMILY OUTFIT OF RUBBER TYPE

TO FORM ANY NAME, WITH EVERY 1/- BOTTLE

THIS USEFUL GIFT CONSISTS OF TWO SETS OF INDIA RUBBER ALPHABETICAL LETTERS PAD, & HOLDER WITH ENLARGED 1/- BOTTLE OF MARKING INK. - SEE YOU GET IT.

Unprecedented success. Large and increased sale.

With CRYSTAL PALACE
JOHN BOND'S GOLD MEDAL
MARKING INK.

Order sample doz. We guarantee most satisfactory result, and repeat order.

WORKS-75 SOUTHGATE ROAD
LONDON.



Established

BISHOP'S

1857.



Granular Effervescent Preparations.

LIST.

Citrate of Caffeine.

(REMEDY FOR SICK HEADACHE.)

Citrate of Lithia.

„ „ **Potash.**

Antipyrin. 5 and 10 grs. in 3

Antifebrin.

Lithia Benzoate.

Sulphate of Soda.

Lithia Salicylate.

Caffeine Hydrobromate.

(REMEDY FOR NERVOUS HEADACHE.)

Phosphate of Soda.

Quinine and Iron.

Soda Salicylate, &c.

AND THE ORIGINAL

"CITRATE OF MAGNESIA"

Ditto (with Saccharin).



Note the name, BISHOP, on the Seal. AND the Registered Trade Mark on the Label.

DISCOVERED AND FIRST PREPARED BY

ALFRED BISHOP & SONS,

MANUFACTURING CHEMISTS, "Speck's Fields," 48 Spelman Street, LONDON, E.



WYLEYS & CO.

MANUFACTURING CHEMISTS AND DRUG GRINDERS.

WAREHOUSES, LABORATORIES, & DRUG MILLS, COVENTRY.

COATED PILLS.

Estimates for making and coating according to private recipes will be forwarded on application.

Our pill department is now a most important branch of our business; and we have a large staff exclusively engaged in pill making. All mixing, cutting, rounding, picking, &c., is accomplished with the aid of steam machinery, by which means we attain a uniformity in composition and size such as cannot be equalled by hand-work.

WYLEYS' PEARL-COATED PILLS.

Our coating is well known as possessed of excellent keeping qualities, being thin in substance, soluble, and well adapted to retain the essential oils contained in the pill masses.

For finish, and general good appearance, they will compare most favourably with any in the market.

WYLEYS' GELATINE-COATED OVAL PILLS.

The only oval gelatine-coated pills of English manufacture in the market. The distinctive colours of the ingredients contained within them show through the transparent covering, and our gelatine-coated pills are admirably adapted for the elegant administration of single drugs, as well as compound pill masses.

Our "Prices Current" contains an extensive list of coated pills, showing formulæ and prices, together with a number of TESTIMONIALS.

MALTED FOOD FOR INFANTS & INVALIDS.

In addition to sending out the above article in bulk, we are supplying it in Half-pound and One Pound Cardboard Cases, **ATTRACTIVE IN APPEARANCE**, and labelled without Name and Address.

PRICES.—In Bulk, 42/- per cwt.; Half-pound Packages, 4/- per doz.; One Pound Packages, 7/6 (subject to Patent Medicine Discount).

GLYCERINE SUPPOSITORIES. (WYLEYS)

FOR USE IN CONSTIPATION.

AS FIRST INTRODUCED BY OURSELVES.

The Lancet says our Suppositories are "most useful and convenient additions to the Materia Medica."

The British Medical Journal.—"They constitute a very convenient and portable form by which glycerine can be administered into the rectum."

Ordinary (Pessary size) .. 1/6 dozen.
Small, for Children.. .. 9d. ,,

COMPRESSED PELLETS. PRICES.

Ammonium Bromide ..	5 grs. 5/ per lb.
Ammonium Chloride ..	3 " 2/6 "
Antipyrin.. ..	5 " 4/ per oz.
Antipyrin.. ..	10 " 4/ "
Phenacetin	5 " 5/ "
Potassium Chlorate ..	5 " 1/8 per lb.
Potassium Chlorate and Borax ..	5 " 2/6 "
Potassium Bicarbonate ..	5 " 2/6 "
Potassium Bromide ..	5 " 3/6 "
Salol	5 " 1/6 per oz.
Sodium Bicarbonate ..	5 " 2/6 per lb.
Soda Mints, containing Sodium Bicarbonate, Ammonium Carbonate, and English Oil of Peppermint	5 " 3/6 "
Sulphonal	5 " 5/ per oz.
Voice Pellets, consisting of Chlorate of Potash, Borax, and a minute proportion of Capsicum, so as to add a slight stimulating effect ..	5 " 4/ per lb.
Voice Pellets with Cocain. Each pellet containing, in addition to Chlorate of Potash and Borax, $\frac{1}{10}$ grain Cocain ..	5 " 5/6 "
Saccharine Pellets (small). We supply these in tubes of 25 and 50, and bottles of 100 pellets; each pellet containing $\frac{1}{2}$ grain of Saccharine and weighing $\frac{1}{2}$ grain only ..	3/9 5/6 8/ per doz.
Saccharine Pellets. $\frac{1}{2}$ grain in each, and weighing 1 grain ..	3/ per oz.
Saccharine Pellets. $\frac{1}{2}$ grain in each, and weighing 5 grain ..	9d. "
Sal. Prunella	5 grs. 2/6 per lb.

COMPRESSED PELLETS WITH SACCHARINE. PRICES.

Ammonium Bromide ..	5 grs. 7/6 per lb.
Ammonium Chloride ..	3 " 5/ "
Potassium Chlorate ..	5 " 4/6 "
Potassium Chlorate and Borax ..	5 " 5/ "
Potassium Bicarbonate ..	5 " 5/ "
Potassium Bromide ..	5 " 6/ "
Sodium Bicarbonate ..	5 " 5/ "
Soda Mints, containing Sodium Bicarbonate, Ammonium Carbonate, and English Oil of Peppermint	5 " 6/ "
Voice Pellets, consisting of Chlorate of Potash, Borax, and a minute proportion of Capsicum, so as to add a slight stimulating effect ..	5 " 6/6 "
Voice Pellets with Cocain. Each pellet containing, in addition to Chlorate of Potash and Borax, $\frac{1}{10}$ grain Cocain ..	5 " 8/ "
Sal Prunella	5 " 5/ "

The above may be had either in bulk, or put up in metallic boxes, or heart-shaped bottles with white metal screw-caps. A special set of descriptive labels (without name) has been compiled for these boxes and bottles.

Concentrated Infusions and Decoctions, Granular Effervescent Preparations, Extracts, Spt. Ether. Nit., Spt. Ammon. Arom., Medicated Suppositories, Pessaries, Bougies, and Plaisters, Medico-Pharmaceutical Appliances, and all New Preparations and Medical Specialities.

THE DURAPLASTIC COATED HORSE BALL.

(PATENTED. No. 16215.)

Extract from "The Veterinary Journal," December, 1886.

Messrs. Wyleys & Co. have introduced a description of horse ball which appears to possess several notable advantages which should commend it to veterinary surgeons. These advantages are related to its shape, coating, and the solubility of this coating. The shape is exactly that of an elongated conical shot, which gives it the fewest possible points of resistance to entering the pharynx and oesophagus, enabling it to pass easily into the stomach, and reducing to a minimum the possibility of accident. The coating is on Fletcher's patent principle, and being absolutely air-tight, the therapeutic properties of the remedies it envelopes remain unimpaired for any length of time; while the ball is kept sufficiently firm to retain its shape, and is yet pliant enough to adapt itself to the fingers during administration. In addition to this, the coating is so soluble that it dissolves in less than two minutes at the normal temperature of the viscera, whereby the prompt action of the medicament is ensured, a point of much importance in urgent cases. The elegance and form of the bolus is in striking contrast to the old-fashioned paper-covered article, with its flat angular ends, and its too hard or too soft consistency.

No. 4.—Alterative Balls ..	24/ per gross
" 5.—Astringent Balls ..	24/ "
" 12.—Condition Balls ..	24/ "
" 6.—Cordial Balls ..	24/ "
" 7.—Cough Balls ..	24/ "
" 16.—Cough Balls ..	27/ "
" 17.—Cough Balls ..	27/ "
" 8.—Diuretic Balls ..	24/ "
" 9.—Fever Balls ..	24/ "
" 1.—Physic Balls ..	24/ "
" 2.—Physic Balls ..	30/ "
" 3.—Physic Balls ..	36/ "
" 18.—Physic Balls ..	42/ "
" 19.—Physic Balls ..	48/ "
" 15.—Stimulating Balls ..	24/ "
" 10.—Tonic Balls ..	24/ "
" 11.—Tonic Balls ..	20/ "
" 13.—Worm Balls ..	30/ "
" 14.—Worm Balls ..	60/ "

PRIVATE FORMULÆ.—WYLEYS & CO. will be glad to prepare Patent Duraplastic Balls from private recipes. Arrangements can also be made to have the name of the Chemist upon each Ball if desired upon orders of 2 gross of assorted Balls.

All Balls are packed in boxes of one dozen. Samples forwarded free on application.

CRESCENT



BRAND.

BICARBONATE OF SODA,

REFINED AND RECRYSTALLIZED.

PURE AND CHEAP.

ANALYSIS.

Bicarbonate of Soda	...	...	...	...	97.20
Mono Carbonate of Soda	...	...	...	...	1.90
Sulphate of Soda	...	...	...	...	trace
Chloride of Sodium	...	...	...	...	.035
Moisture	...	...	...	...	.82
Insoluble	...	...	...	...	nil

PURE ALKALI,

GUARANTEED 58 DEGREES,

EQUAL TO 98 PER CENT. OF CARBONATE OF SODA.

Most economical form of Soda for the use of Printers,
Bleachers, Dyers; Glass, Paper, and Soap Makers.

SODA CRYSTALS

OF THE FINEST QUALITY.

BRUNNER, MOND & CO., LIM.

*Manufacturers of Soda by the Ammonia Process
(Solvay's & Mond's Patents),*

NORTHWICH, CHESHIRE.

LOFTHOUSE & SALTMER, MANUFACTURING CHEMISTS, WHOLESALE & EXPORT DRUG MERCHANTS HULL,

Manufacturers of all Pharmaceutical Preparations on the best and most improved principles.
QUOTATIONS ON APPLICATION.

SOLUT. ÆTHERIS NITROSI (Æther. Hyponit.)

1 part to 5 Sp. Vini Rect. 66 o.p. makes Sp. Æth. Nit. 850.

This concentrated preparation is carefully drawn in our own laboratory, is highly recommended, and is daily finding increased favour with the trade for making Sp. Nitre, as required for use, and thus avoiding the risk of a development of free acid, which is more or less prevalent in Sp. Nitre that has been drawn some time. Price in Winchester Quarts, 8s. per lb., net.

Importers of Cod Liver, Castor, and Olive Oils; Otto de Rose, and all Essential Oils; Valentia Saffron; Vanillas; Fruit Essences; Carmine; Aniline Dyes; Bees Wax, &c., &c. Applications for Special Quotations invited.

SALICYLIC ACID

AND

SALICYLATES

(KOLBE'S)

MANUFACTURED BY

J. HAUFF, FEUERBACH - STUTTGART.

To be obtained through all Wholesale Houses in Great Britain and Ireland and from the SOLE AGENTS,

FUERST BROS., 4 COPTHALL BUILDINGS, LONDON, E.C.
Telegrams—"FUERST LONDON." Telephone No. 462.

CLARIDGE & CO.

MANUFACTURING CHEMISTS,

WARWICK, ENGLAND,

RECOMMEND THEIR

PURE PREPARATIONS OF PEPSINE

Guaranteed to answer the tests of all authorised authorities, and superior to any made, whilst the price is considerably lower.

THIS TESTIMONIAL IS SELECTED AMONGST OTHERS.

DEAR SIR,
We have received a supply of your "Pure Pepsine Porci," and find that 20 grains dissolve (or digest) three hundred and sixty grains of dry fibrin. This result we consider to be very satisfactory, and we can therefore confidently recommend your preparation. Yours faithfully
To Messrs. CLARIDGE & SON, Warwick. SOUTHALL, SON & DYMOND.

Also eulogised by DR. LETHEBY in his Lecture before the Society of Arts in London.

PRICES—Pepsine Porci Pur., 2s. per 1 oz.; Pepsine, B.P., 2s. per 1 oz.; Pepsine, best English (Amylated), 30 % pur., 10s. per lb.

SPECIAL CHARACTERISTICS.—Superior activity in digestive power, purity, freedom from objectionable odour, and good keeping properties have secured for 25 years the confidence and preference for Messrs. CLARIDGE'S Preparations by the leading London houses.

Order direct, or through any London firm or Shipping house.

Special discount for 25 ounces and upwards.

VALUABLE & INTERESTING TO EVERYBODY. COMPRESSED HOPS.

Best Hops compressed into small parcels of one pound and half-pounds, and sent out in cases containing 30 lbs. each. These Hops are specially selected and compressed for keeping purposes, and will retain their aromatic strength for a considerable time.

They are introduced to the Public to enable them to make their own BITTERS, YEAST, HOME BREWING, and numerous other purposes. Full particulars given on each packet.

P.S.—Chemists will naturally see the great advantage in making their own Bitters from the Pure Hop itself.

NOTE NEW ADDRESS.

Specially Packed by A. WILKINSON & SONS, 37 CANNING PLACE, LIVERPOOL.

SAMPLES AND QUOTATIONS ON APPLICATION.

Sole Agents for Chemists—EVANS, SONS & CO., Liverpool; EVANS, LESCHER & WEBB, London; EVANS AND SONS, Lim., Montreal.

EXTRACTS FROM "HAWLEY'S COUNTER ADJUNCTS"

With Name and Address of Chemist printed.



RED BARK BITTERS
Half-Pints, 15/6.
Pints, 27/6.



BETEL NUT TOOTH PASTE.
64. Size, 3/6 dozen ; 6 dozen, 3/3.



SACCHARIN PELLETS, 1 Size, 7 doz.



RED HORSE BLISTER.
10¢ per dozen.



JAR' SALAD OIL
6/6, 10/6, 20/
doz.

GLYCERINE AND CUCUMBER JELLY.

STYLE.—In 1-oz. bottles, boxwood-topped corks; $\frac{1}{2}$ dozen in a cardboard box, with Chemist's name and address printed on labels.

Price 3s. 9d. dozen; 6 dozen, 3s. 6d.

Sixpence per dozen extra for name and address; 6 dozen and upwards, FREE.

Full particulars of the above in the New (1889) Edition of
 "HAWLEY'S COUNTER ADJUNCTS," recently published, with
 many additions, post free on application.

SAVARESSE'S CAPSULES.

**SAVARESSE'S
CAPSULES.
SANDAL WOOD;
COPAIBA.**

Savarse's Capsules of membrane, each containing 15 drops Pure Marabham Copaiba Balsam, or, also of membrane, each containing 10 drops Purest Yellow Sandal Wood Oil. The efficacy of these valuable medicines is due to the absolute purity of the Balsam or Oil, and to the very gradual solvability of the membrane as compared with gelatine.

Copalba, 2s. 6d., 14s. dozen.
Sandal, 4s. 6d., 36s. doz.

SAVARS CUBEB CIGARETTES

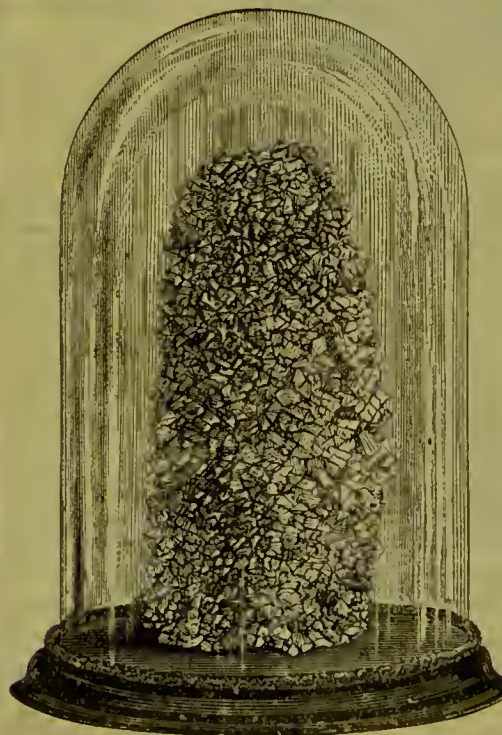
**SAVARS
CUBES
CIGARETTES.**

Cubebæ, Stramonium, and Cannabis Ind. (soothing). Relief in Asthma, Throat Cough, Bronchitis, Indu- enza. A specific against Fogs.

Boxes (12) 1s., 9s. per dozen ;
(36) 2s. 6d., 24s. per dozen.

Full Directions.

SHOW CRYSTALS.



We are now able to supply immediately these attractive Adjuncts to the Chemist's window. The selection of purer salts and longer time in their formation has enhanced their price, but at the same time their beauty. Price, complete with Mount and Glass Slide, 31s. 6d., 21s., 10s. 6d. each.

SAYARS CARBOLIC DISINFECTING POWDER.

A thoroughly good Disinfecting Powder, containing the full recognised percentage of Carbolic Acid. It is put up in neatly wrapped perforated Tins, containing 1 lb. and 2 lbs. FULL WEIGHT.

1-b. Tins, with or without Chemist's name and address ..	4'0 doz.
2-b. Tins, " " " " ..	7'0 "

Printing name and address, 6d. per doz. ; 6 doz. and over, free.

LONDON—

EVANS, LESCHER & WEBB,
60 BARTHOLOMEW CLOSE.

LIVERPOOL-

EVANS, SONS & CO.
56 HANOVER STREET. [c]

CANADA: EVANS AND SONS (LIMITED), MONTREAL AND TORONTO.

Agents: JAMIESON & CO., 263 GEORGE STREET (opposite Bond Street), SYDNEY, N.S.W.

"CUTTING COUNTERACTED."

MOONSEED BITTERS brings FULL PRICES.

WHY?

Because every one who retails Moonseed Bitters has to sign an Agreement or Contract in the following terms:—



MOONSEED BITTERS.

Above is Facsimile of
THE WRAPPER LABEL
of the 2/9 size.
It is also sold at 4/6.

MOONSEED OINTMENT.

Retails at 1/1½, 2/9, 4/6 per box.

Memorandum of Agreement made this.....day of..... 1889, between A. E. POWELL & COMPANY, of Swindon in the County of Wilts, Proprietors of the Moonseed Bitters and Moonseed Ointment (hereinafter called the "Vendors"), of the one part and of (hereinafter called "the Purchasers"), of the other part.

Whereby it is mutually agreed between the said parties hereto as follows:—

In consideration of the Vendors selling to and supplying the Purchasers with Moonseed Bitters, Moonseed Ointment, and other preparations manufactured and sold by them (hereinafter termed "the Goods") at their usual prices, the Purchasers will observe and perform the following terms and conditions:—

1. The Purchasers to sell the Goods retail for full printed prices only, and for each and every Bottle or Box of Moonseed Bitters, Ointment, or Pills sold by him or them at any less price, without the written consent of the Vendors, the Purchasers shall pay to the Vendors the Sum of Twenty Shillings in the nature of a penalty, to be recoverable as ascertained liquidated damages.

2. The Purchasers not to supply any Wholesale House nor to sell the Goods wholesale to any Chemist or Druggist or Medicine Vendor who will not previously enter into an Agreement to retail the same at prices in accordance with the preceding Clause No. 1 of these presents.

All Purchasers who have signed a similar form of Agreement to the foregoing will be supplied upon the Vendors' usual trade terms, but those Purchasers who do not sign a similar form of Agreement to be supplied upon the following terms only, namely:—RETAIL, 4s. 5d. for each and every 4s. 6d. Box or Bottle, 2s. 8d. for each and every 2s. 9d. Box or Bottle, and 1s. 0½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. WHOLESALE, 4s. 4d. for each and every 4s. 6d. Box and Bottle, 2s. 7d. for each and every 2s. 9d. Box or Bottle, and 11½d. for each and every 1s. 1½d. Box or Bottle—net in all cases. This Agreement and the terms and conditions herein contained to remain in full force and virtue for the term of 7 years from the first day of March, 1889.

As witness the hands of the said parties hereto the day and year first above written.

We call attention to the important steps which we have taken to prevent our specialities being retailed at less than the advertised prices, and we ask the co-operation of the Trade in maintaining the integrity of the scheme whereby the sale of our preparations may always be retained by the legitimate trade. We will not only endeavour, by all means in our power, to prevent the advertised prices being "Cut," but will give Chemists every assistance and facility for making this a large as well as a paying business.

Please write for Terms and Form of Agreement. NOTE that we allow retailers of Moonseed Bitters 2s. 6d. per thousand for the Distribution of Pamphlets. All Goods are sent Carriage Paid for Cash in the United Kingdom.

A. E. POWELL & CO., SWINDON.

WE REPLY TO OUR CRITICS.

The announcement made to the Trade through THE CHEMIST AND DRUGGIST on January 26th last immediately absorbed attention, and, as is always the case with novel movements, a little scepticism. For example, some critics tried to knock the bottom out of our scheme by saying that our goods could be obtained through ordinary channels at the ordinary rates. To that we reply that:—The scheme commenced on March 1st, when we hoped all the Wholesale Houses would have their stocks of the MOONSEED BITTERS and OINTMENT exhausted. From that date we start fair, and we shall do our very utmost to prevent cutting and protect the Trade. Recently some Chemists have, through the columns of THE CHEMIST AND DRUGGIST, done their best to belittle the scheme which we propose. We HAVE AN ANSWER TO EVERY CRITICISM, and here are a few:—

What Critics say.

(1) Messrs. Powell's proposals will not help the chemist very much in solving the question as to "retail prices of patents," seeing that the large advertisers could not, if they would, adopt their methods.

(2) Messrs. Powell's method cannot be adopted by others.

(3) That traitors will kill the scheme.

Our Reply.

We are among the largest advertisers. We have initiated the method, and if all other makers of Proprietary preparations had done the same in the early days of their success cutting would never have been heard of. What we are anxious to do now is to ensure that every bottle of Moonseed Bitters and every box of Moonseed Ointment will be sold at the full advertised prices. "A little leaven leaveneth the whole." In time all Proprietors of Patent Medicines may adopt our method. Is this not what the trade wants?

We are not particularly anxious to have our original device stolen by our rivals, but there is no reason why they should not adopt a similar scheme, and with the determined support of the trade success is certain.

Our reply to that is short. No traitor survives starvation, and those who violate the bond receive no more supplies. Traitors violated our unstamped papers, and for that reason we threw them open to the trade from June 1888 to March 1889.

We respectfully call the attention of the Drug Trade to the Terms of the Agreement as given on the opposite page, and ask their support in maintaining prices and in extending the profitable sale of the article.

A. E. POWELL & CO., SWINDON.

DR. LALOR'S PHOSPHODYNE



For TWENTY-FIVE YEARS has maintained its world-wide reputation as THE ONLY SAFE RELIABLE PHOSPHORIO REMEDY ever discovered for the Permanent Cure of Brain Wreckage, Paralysis, Sleeplessness, Harassing Dreams, Premature Decay of Vital Power, and all Functional and Diseased Conditions of the System dependent upon the Deficiency of the Vital Forces. It Cures Dyspepsia, Nerve and Heart Disease. Cures Kidney and Liver Complaints. Cures all Blood Disorders. Cures Consumption and General Debility. Checks all Wasting of the Vital Forces, from whatever cause arising.

THE EFFECT of this Standard Phosphoric Remedy in Nervous Debility and its Kindred Evils is Immediate and Permanent, all the Miserable Feelings and Distressing Symptoms disappearing with a rapidity that is REALLY MARVELLOUS.

DR. LALOR'S PHOSPHODYNE

HEALTH, STRENGTH, AND ENERGY.

Is the only Medicine of the kind or name awarded a Certificate of Merit at the Calcutta Exhibition, 1883-4, where all Countries were Exhibitors, and the only Trade Mark—"PHOSPHODYNE"—Registered and Protected under the Trade Marks Act.

THOUSANDS of unimpeachable Testimonials from all parts of the World, and from the highest Medical Authorities, prove conclusively the Verdict Universal that in the World of scientific research no other Phosphoric Preparation has received such exalted praise and distinguished recognition.

Full Printed Directions for the guidance of Patients in the Self-Treatment of the above Diseases are enclosed with each Bottle.

Sold in bottles at 4s. 6d. and 11s. by all Chemists throughout the World.

MANUFACTURED ONLY AT

DR. LALOR'S PHOSPHODYNE
LABORATORY,
HAMPSTEAD, LONDON, N.W.

KAY BROTHERS LIMITED, STOCKPORT.

SPECIALITIES.

ABSORBENT COTTON WOOL, Plain and Medicated.
KAY'S CHESHIRE BIRD LIME (in bulk and in tins).
KAY'S CHEMICAL DISINFECTANT (in bulk and in tins).
DEC. SENEGÆ CO. CONCT., OXYMEL SCILLÆ, &c., &c.

TRADE "COAGULINE" MARK.

THE BEST CEMENT FOR BROKEN ARTICLES
KAY'S COMPOUND ESSENCE
OF LINSEED, ANISEED, SENEGA, SQUILL, TOLU, &c.
(with Chlorodyne). "The Stockport Remedy" for Coughs and Colds.

LINSEED LOZENGES (Solidified Linseed Tea).
CHLORO-LINSEED COUGH LOZENGES. — A Medicated Linseed Extract.

KAY'S THROAT LOZENGES, for Relaxed or Sore Throat, Hoarseness, &c.

KAY'S INSTANT CURE for Toothache.

PAINLESS SOLVENT for Corns and Warts.

LINUM CATHARTICUM PILLS (of the Purgative Linseed).

KAY'S TIC PILLS.—A specific and pure Nerve Tonic.

STRAMONIUM CIGARETTES.—For Asthma.

CORN AND WART "SICCATIVE" (painless).

CUE CEMENT.—For tipping Billiard Cues.

IMPROVED CUE TIP FIXERS (Brass and Wood).

MARKING INK for Linen.

ARNICA HEALING POWDER.—Toilet.

KAY'S TUBES for Feeding Bottles, with patent glass valve Fit all bottles, and prevent children sucking air.

KAY'S RESPIRATORS.—GOLD PLATED, 2/6 and 5/6.

SAPO-LINI, a Saponified Linseed Jelly; an excellent Toilet Soap All articles containing Scheduled Poisons are so labelled.

THE BEST ELASTIC STOCKINGS, LEGGINGS, SOCKS, KNEE CAPS, &c.

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ESTABLISHED 1812.



HEALTH
EXHIBITION.

POTTER & CLARKE,



Registered Trade Mark

WHOLESALE AND EXPORT BOTANIC DRUGGISTS,
75 WESTON STREET, LONDON, S.E.

SPECIALITIES—

COMPOSITION ESSENCE.

This Genuine Essence of Composition will be found superior, both in medicinal properties and aromatic flavour, to that generally sold. The demand for this article being a large and increasing one, all chemists will find it a profitable addition to their stock.

Price 1/- per lb. Special prices for large quantities. Also in 6d. and 1/- Bottles, 3/6 and 6/- per doz.

FLUID EXTRACTS. NEW REMEDIES.
MEDICINAL HERBS IN PACKETS.

Special Agents for Messrs. Parke, Davis & Co.'s Fluid Extracts, Concentrations, Pressed Herbs, &c.

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**DR. RENNER'S ESTABLISHMENT FOR
VACCINATION WITH CALF LYMPH,**
186 (late 228) Marylebone Road, London, N.W.

VACCINATION FROM THE CALF DAILY FROM 11 TO 12 O'CLOCK.

Reduced price of Calf Lymph (daily fresh).

Tubes	Large	...	...	2s. each, or 3 for 5s. 6d
	Small	...	...	1s. " " 2s. 9d.
Points	Large	...	...	1s. " " 2s. 6d
	Small	...	...	9d. " " 2s.
Squares	...	...	...	2s. 6d. each.

Registered Telegraphic Address—"VACCINE LONDON."

Sent on receipt of remittance addressed to the Manager of the Establishment. Discount to the Trade.

Trade Mark.



Registered.

**THE
ASSOCIATION for the SUPPLY of PURE VACCINE LYMPH,
12 PALL MALL EAST, LONDON, S.W.
SOLE AGENTS FOR DR. WARLDMONT'S CALF VACCINE.**

Tubes, 2s. each; Half Tubes, 1s. each. Pomade in vials, 5s.
HUMAN VACCINE, from healthy children only, microscopically examined and source quoted. Tubes, two-thirds full, 1s. 4d. each; Tubes one-third full and Lancet-charged Points, 1s. each; Pin-points, 1s. 1d. each. Eighteen charged Small Points, 5s. Tubes, two-thirds full (same as those mentioned above, but without source), in quantities for export, £5 per 100 Tubes. Pin-points uncharged, 1s. per dozen. Vaccine Ejectors 1s. 3d. each, including postage. Vaccinations by appointment. P.O.O.'s (including postage, and crossed London and Westminster Bank), with orders, payable to
EDWARD DARKE, Secretary.
Office hours, 10 to 4; Saturdays 10 to 2.

Awarded the SILVER MEDAL at the Brussels Exhibition, 1888

**GODFREY'S
NEW PATENT**

CHLORIDE OF AMMONIUM

CATARRHAL
THROAT
AND
EAR
AFFECTIONS.



LOSS of
VOICE,
BRONCHIAL
ASTHMA
AND
HAY FEVER.

I N H A L E R

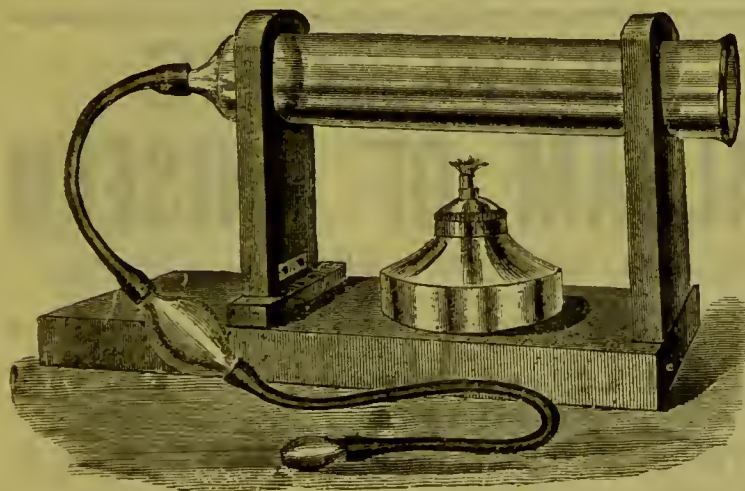
YIELDS a plentiful cloud of Neutral Vapour with little effort on the part of the patient.

Illustrated Prospectus, with the "History of Chloride of Ammonium as a remedial agent," free by post.

Price 7/6 Retail.

SHIPPERS AND LARGE BUYERS SUPPLIED ON LIBERAL TERMS.

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CHLORIDE OF AMMONIUM
INHALER.**

The simplest Apparatus yet introduced to the profession. Requires no strong caustic or acid liquids. Fumes are invariably neutral.

To be had of all Chemists and Sundriesmen, and of the Proprietors—

ANDERSON & ADAMS

68 GRAFTON STREET, DUBLIN.

LYNCH & CO., London Agents.

PATENT APPLIED FOR.

"FOR THE BLOOD IS THE LIFE."

**CLARKE'S
WORLD FAMED
BLOOD MIXTURE,
THE GREAT BLOOD PURIFIER AND RESTORER.**

(Trade Mark—"BLOOD MIXTURE," Registered No. 3275)

The Celebrated CURE FOR Scrofula, Scurvy, Eczema, Blood and Skin Diseases, and Sores of all kinds.

Wholesale of all the Wholesale Houses. Usual terms.

Sole Proprietors, **THE LINCOLN & MIDLAND COUNTIES' DRUG COMPANY, LINCOLN.**

Counter Bills and Posters, with Name and Address, also Show Cards, on application. Printed matter supplied in any Language for Foreign Agents.
CAUTION.—The Proprietors will take immediate proceedings against all persons pirating their Trade Mark, "Blood Mixture," Labels, Wrappers, &c., or Advertisements, or in any way infringing their rights.



SIR JAMES MURRAY'S PURE FLUID MAGNESIA.

As Prepared by the Discoverer, SIR JAMES MURRAY, M.D.

FOR OVER 60 YEARS IN USE AS AN EXCELLENT REMEDY FOR ALL DISEASES OF THE STOMACH AND LIVER.

In Summer time, and in warm climates, it is invaluable, as it cools the Blood and improves the system generally.

It is the only known Drug which cures that most unpleasant of all maladies, viz., a HEADACHE. In cases of Gout and Indigestion it is indispensable.

AND IN THE NURSERY IT IS INVALUABLE. SPOKEN OF MOST HIGHLY BY ALL THE PROFESSION

Sold by all respectable Chemists, in Large sized Bottles (the 1s. size containing nearly Double the Quantity usually sold at that price), at 1s., 2s. 6d., and 3s. 6d. each. Also in Winchester Quarts for Dispensary and Hospital use.

CAUTION.—Observe the SIGNATURE of the Inventor on EVERY LABEL.

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HAS THE LARGEST SALE OF ANY COUGH MEDICINE.

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THOMAS POWELL, Lim., 4 Albion Place, Blackfriars Road, LONDON, S.E.

Sold by Chemists and Medicine Vendors throughout the World. Can be obtained of any of the Medicine Houses.

SINGLETON'S

BY FAR THE BEST
KNOWN REMEDY

FOR ALL DISORDERS OF THE
EYES AND EYELIDS.



250 YEARS'



WORLD-WIDE

GOLDEN EYE

REPUTATION

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KNOWN TO THE PUBLIC UPWARDS OF 250 YEARS AS A CERTAIN CURE FOR

INFLAMED EYES, WEAK SIGHT, SORE EYES, SCORBUTIC ERUPTIONS, PILES, BRUISES, ETC.

Recommended and frequently used by DR. WARE, DR. ALEXANDER, MR. CRITCHETT, and other Eminent Oculists.

CAUTION.—None offered for Sale can be genuine unless the words SINGLETON'S GOLDEN EYE OINTMENT are engraved on the Government Stamp and round the Pot, and the Bill of Directions in which it is enclosed bears the name and address—

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MANUFACTURED BY THE AMSTERDAMSCHER CHININEFABRIEK.

These Tablets are made from guaranteed Pure COCOA AND SUGAR; each Tablet contains 1 Grain SULPHATE OF QUININE.

Quinine mixed with Chocolate is practically tasteless, and can be taken even by such persons who cannot digest Quinine in other forms.

BEST PREVENTIVE AGAINST FEVER, WEAKNESS, &c.

Apply for Samples and prices to DOMEIER & CO., 13 ST. MARY-AT-HILL, LONDON.

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BARRON, SQUIRE & CO.

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WHOLESALE & EXPORT DRUGGISTS,
BUSH LANE, LONDON, E.C.,

MANUFACTURERS OF ALL DESCRIPTIONS OF PHARMACEUTICAL PREPARATIONS,

Beg to inform Merchants, Shippers, &c., that all Indents entrusted to them will receive careful attention and prompt execution.

Messrs. B., S. & Co. request the attention of their friends and the Trade, at home and abroad, to their having PURCHASED THE BUSINESS of Messrs. JAMES BASS & SONS, Hatton Garden, and with it the various Formulæ from which their Special Preparations have been made, and pledge themselves to supply them in all their integrity.

Specimens of these Preparations have remained in the Museum of Kew Gardens during 23 years without deterioration.

COOK'S ANTISEPTIC SOAP

(THOMSON'S PATENT),

Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with.
(See "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF

ECZEMA, RINGWORM, SCABIES, FAVUS
AND OTHER SKIN DISEASES.

See "The Lancet," 12 May, 1883, page 936.

Price in 3-Tablet Boxes, per doz. **12/-**; Selling Price, **1/6**; in $\frac{1}{4}$ -gross Boxes, **10/6** per box

CAN BE OBTAINED THROUGH

MESSRS. MAW, SON & THOMPSON, LONDON, or of
EDWARD COOK & CO., HOUSEHOLD and TOILET **SOAP MAKERS, LONDON, E.**

THE NURSERY, THE SICK ROOM, THE TOILET.



THE
ARIEL POWDER
PUFF.

(MARY WEDLAKE'S PATENT.)

IS a New Invention by which the Powder is contained in the Puff, and from which it is distributed in such a manner as to secure an even dispersion wherever directed. The Ariel Powder Puff never touches the skin, and, therefore, risk from contagion is impossible.

It may be carried in the pocket, always ready for use.

R. FARRAR, House Surgeon, St. Bartholomew's Hospital, writes:—"It is simple, ingenious, and effective."

Dr. G. E. YARROW, City of London Lying-in Hospital, writes:—"It possesses distinct advantages over the old form, amongst the most important of which is, that by its use powder is delivered on parts which are with difficulty reached by the ordinary puff."

Price 8s. and 11s. 6d. per dozen.

Of all Wholesale Houses, and of the Patentee direct.

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PRICE'S SANITARY SOAPS.

GLYCERINE & CARBOLIC ACID,

GLYCERINE & COAL TAR,

GLYCERINE & EUCALYPTOL,

GLYCERINE & SALICYLIC ACID,

GLYCERINE & THYMOL,

PRICE'S PATENT CANDLE
COMPANY, LIMITED,
LONDON & LIVERPOOL.

A Lovely Bath and Toilet Water obtained by Using

**PASTA MACK.**

GOLD MEDAL, Hygienic
Exhibition, Ostend, 1888.

This entirely New and Un-
rivalled Health-giving Pre-
paration Softens the
Water, instantly imparts a
Most Delicious Odour, and
Beautifies the Com-
plexion in an extraor-
dinary way.

Of all respectable Perfumers
and Chemists. Beware of
Worthless Imitations. See
the Trade Mark on every
box.

The Queen says:—"Pasta Mack is made in small tablets, which are pleasantly scented, and when placed in water soon dissolve, and impart a violet-like perfume to the water and the atmosphere."

Weldon's Journal says:—"It is wonderfully refreshing for the bath or for bathing the face after exertion or fatigue. In this charming preparation is offered the most unique and agreeable means of perfuming and softening water for our daily use."

Sole Manufacturer and Inventor, H. MACK, Ulm a/D. Export from all whole-
sale houses. Wholesale Agents for Great Britain, OSBORNE, GARRETT & CO.,
London, W.

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When ordering from **MONA** AND ONLY GENUINE.

Wholesale Houses

please specify

"GREENSILL'S."

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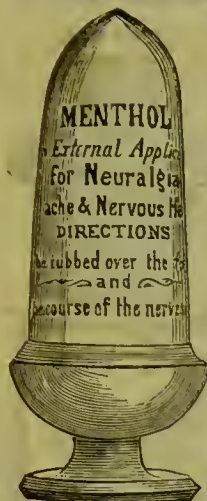
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DOUGLAS, ISLE OF MAN.

SHIRLEY'S A1 BRAND MENTHOLS.

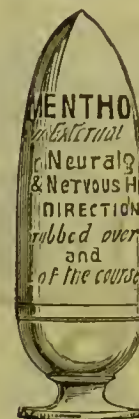


Style 6.

REDUCED IN PRICE.

No.	DESCRIPTION.	Per doz.
1	6d. Glass Bottles, Metal Cap	3/
* 3	6d. & 9d. " "	4/
5	1s. " "	6/
* 6	Boxwood Pedestal	3/6
* 9s	" Skittle	3/6
* 11A	" Pedestal	3/
* 17s	6d. Boxwood Draughtsman	3/9
17L	1s. " "	6/6
* 19	4d. " Egg Shape	2/6
* 19B	4d. " Barrel Shape	2/6
* 24	6d. " Bottle	3/
26A	6d. Glass Shade and China Stopper	3/6
27A	1s. Ditto ditto	6/3

No.	DESCRIPTION.	2nd quality	Per gross	Per doz.
100	2d. Polished Willow Box	12/	...	1/4
101	3d. " Acorn	17/	...	1/10
102	3 1/2d. Boxwood Pedestal	24/	...	2/4
103	4d. " "	27/	...	2/9
104	4d. " Barrel	27/	...	2/9
105	6d. " Button	34/	...	3/4
106	Polished Willow Pedestal	20/	...	2/
107	" " "	23/	...	2/3
108	" Draughtsman	24/	...	2/4
109	" " Pedestal	26/	...	2/6
110	1d. Willow Bottle Shape, 3 dozen on card,	7/6	per gross.	



Style 11A.

REDUCED IN PRICE.

* PLEASE NOTE.—Prices of these patterns have been reduced as low as possible compatible with a good saleable article.



This attractive
SHOW CASE,
Together with a
packet of Shirley's
New Advertising
Slips,
GIVEN FREE
if an Order for 25/-
is placed.

CAPITAL 4d. LINE.



No. 30.

The Menthol is
fixed in a boxwood
pedestal, covered
with glass shade,
and altogether a very
saleable article is
presented.

2/- per dozen.



Registered No. 114470.

A REAL NOVELTY IN DISINFECTANTS.

The disinfectant is in the form of a block, fitted into a neat case, which can be hung up anywhere. By simply opening a flap in front the air acts on the substance, which throws off its antiseptic properties.

This should be found in every W.C., Nursery, Sick-room, &c.

Price,
per doz.,
7/.

FUMIGATING RIBBON.—6d.

Elegantly put up in round blue and gold cardboard cases.

A1. 3/6 per doz. **A1.**

COCAINE & MENTHOL TOOTHACHE TUBE 6d.



COCAINE & MENTHOL TOOTHACHE TUBE.

A1.

Selling very freely.

This must supersede all Toothache Tubes in the market, the combination of two such powerful anodynes alone recommending it. Each tube enclosed in cardboard case with cotton wool.

3/6 per dozen.

ANTI-CATARRH SALTS.—A1.

Per doz.
6d. size in watch stoppered bottles 4/
1s. " actinic green bottles ... 6/6

ALWAYS ORDER AS A1 BRAND. IT IS A GUARANTEE OF EXCELLENCE.

ARTHUR W. SHIRLEY, 30 PATERNOSTER SQUARE, LONDON, E.C.

COOK'S ANTISEPTIC SOAP

(THOMSON'S PATENT),

Has been tested in a Physiological Laboratory as a Germ Destroyer, and proved to be more efficient than any other experimented with.
(See "Journal of Chemical Industry, 1888, No. 3.) Of great value in CASES OF**ECZEMA, RINGWORM, SCABIES, FAVUS**
AND OTHER SKIN DISEASES.

See "The Lancet," 12 May, 1888, page 936.

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THE NURSERY, THE SICK ROOM, THE TOILET.

**THE ARIEL POWDER PUFF.**

(MARY WEDLAKE'S PATENT.)

IS a New Invention by which the Powder is contained in the Puff, and from which it is distributed in such a manner as to secure an even dispersion wherever directed. The Ariel Powder Puff never touches the skin, and, therefore, risk from contagion is impossible.

It may be carried in the pocket, always ready for use.

R. FARBAR, House Surgeon, St. Bartholomew's Hospital, writes:—"It is simple, ingenious, and effective."
Dr. G. E. YARROW, City of London Lying-in Hospital, writes:—"It possesses distinct advantages over the old form, amongst the most important of which is, that by its use powder is delivered on parts which are with difficulty reached by the ordinary puff."

Price 8s. and 11s. 6d. per dozen.

Of all Wholesale Houses, and of the Patentee direct.

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**PRICE'S
SANITARY
SOAPS.****GLYCERINE & CARBOLIC ACID.****GLYCERINE & COAL TAR.****GLYCERINE & EUCALYPTOL.****GLYCERINE & SALICYLIC ACID.****GLYCERINE & THYMOL.****PRICE'S PATENT CANDLE
COMPANY, LIMITED,
LONDON & LIVERPOOL.**

A Lovely Bath and Toilet Water obtained by Using

**PASTA MACK.**GOLD MEDAL, Hygienic
Exhibition, Ostend, 1893.This entirely New and Un-
rivalled Health-giving Pre-
paration Softens the
Water, instantly imparts a
Most Delicious Odour, and
Beautifies the Com-
plexion in an extraor-
dinary way.Of all respectable Perfumers
and Chemists. Beware of
Worthless Imitations. See
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to the water and the atmosphere."Weldon's Journal says:—"It is wonderfully refreshing for the bath or for
bathing the face after exertion or fatigue. In this charming preparation is offered
the most unique and agreeable means of perfuming and softening water for our
daily use."Sole Manufacturer and Inventor, H. MACK, Ulm a D. Export from all whole-
sale houses. Wholesale Agents for Great Britain, OSBORNE, GARRETT & CO.,
London, W.**GREENSILL'S** THE ORIGINALWhen ordering **MONA** AND ONLY GENUINE.
fromWholesale Houses
please specify **BOUQUET**
"GREENSILL'S."

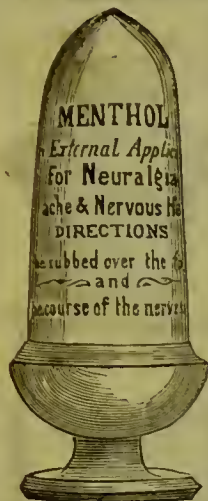
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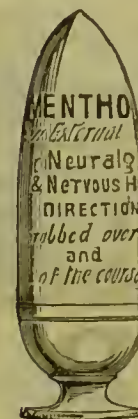


Style 6.

REDUCED IN PRICE.

No.	DESCRIPTION.	Per doz.
1	6d. Glass Bottles, Metal Cap	3/
* 3	6d. & 9d. " " "	4/
5	1s. " " "	6/
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* 9s	" Skittle	3/6
* 11A	" Pedestal	3/
* 17s	6d. Boxwood Draughtsman..	3/9
17L	1s. " " "	6/6
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110	1d. Willow Bottle Shape, 3 dozen on card, 7/6 per gross.			



Style 11A.

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This attractive
SHOW CASE,
Together with a
packet of Shirley's
New Advertising
Slips,
GIVEN FREE
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CAPITAL 4d. LINE.



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Registered No. 114470.

A REAL NOVELTY IN DISINFECTANTS.

The disinfectant is in the form of a block, fitted into a neat case, which can be hung up anywhere. By simply opening a flap in front the air acts on the substance, which throws off its antiseptic properties.

This should be found in every W.C., Nursery, Sick-room, &c.

Price,
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7.

FUMIGATING RIBBON.—6d.

Elegantly put up in round blue and gold cardboard cases.

A1. 3/6 per doz. **A1.**

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Per doz.

6d. size in watch stoppered bottles 4/
1s. " actinic green bottles ... 6/6

ALWAYS ORDER AS A1 BRAND. IT IS A GUARANTEE OF EXCELLENCE.

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METAL BOTTLE CAPS
AND
SCREWED BOTTLES.

For Paints, Perfumes, Soaps, Creams, Oils, and all Fluid
or Semi-Fluid Substances.

PERFUME
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BOTTLES.



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ORIENTAL AROMATIC SALTS, FOR BATH AND TOILET PURPOSES.



The **ORIENTAL AROMATIC SALTS**, when dissolved, render the water very soft, and impart a most agreeable and refreshing perfume that can be diffused with advantage in a room where the air is close and depressing.

The **ORIENTAL AROMATIC SALTS** strengthen the tissues, perfume and invigorate the body, preserving it from contagious diseases, and cleanse the pores, thus facilitating the cutaneous transpiration so necessary to life.

The **ORIENTAL AROMATIC SALTS** are unrivalled for beautifying and preserving the Skin, rendering it soft and velvet-like; and for keeping the complexion perfectly bright and clear.

They are indispensable in the Bath as well as in the Bedroom, and should be used by everybody. In most cases of Skin Diseases these Salts will be found invaluable.

Sold in Bottles at 1/6. Wholesale of the Patentees and Manufacturers—

S. TRAVADO & CO., 27 Jewry St., E.C., LONDON.

To be had also of Messrs. BREIDENBACH & CO., Perfumers to the Queen,
167b NEW BOND STREET, W

OKELL'S ORIGINAL MONA BOUQUET

Retail, 1/, 1/8, & 3/6; Wholesale, 7/12, & 22/6 per doz.
This much-admired Perfume (first introduced by the late Joseph Okell) may be obtained from the leading Patent Medicine Houses, Wholesale Druggists, and Druggists' Sundry Dealers.

Sole Consignee—**THOMAS WEST, 59 and 61 Chester Road, Stretford, Lancashire.**

Special Agents—**B. G. LENNON & CO., London, and Port Elizabeth Cape Town, and East London, South Africa.**

PURE OTTO OF ROSE, SPECIALITY OF SHIPKOFF & CO.

**DISTILLERS AND EXPORTERS,
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Agent for Great Britain—**G. P. BAKER, 19 Ivy Lane, LONDON, E.C.**

THE OTTO OF ROSE which this house distills and exports is known above all by the absolute purity of its quality and the unexcelled sweetness and strength of its odour. It is guaranteed to be the finest essence produced in the famous Rose Valley of Bulgaria.

SEE INDEX, PAGES 21, 23.

S. MAW, SON & THOMPSON'S
CHERRY TOOTH PASTE,

WARRANTED TO KEEP IN ANY CLIMATE.

In Round Earthenware Covered Boxes, Burnt-in Labels, 3s. 9d. and 7s. 0d. per dozen

S. MAW, SON & THOMPSON'S
AROMATIC TOOTH PASTE.

WARRANTED TO KEEP IN ANY CLIMATE.

In Square Earthenware Covered Boxes, Burnt-in Labels, 10s. 6d. per dozen.

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INDIAN BETEL NUT
OR
ARECA TOOTH PASTE.

WARRANTED TO KEEP IN ANY CLIMATE.

In Round Earthenware Covered Boxes, Burnt-in Labels, 3s. 9d. and 7s. 0d. per dozen.

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CAMPHORATED TOOTH PASTE

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In Round Earthenware Covered Boxes, Burnt-in Labels, 3s. 6d. and 6s. 6d. per dozen.

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 GEORGE WALKER, late of the Firm of Wyleys & Co.; CHARLES TROKE, of the late firm of Gabriel & Troke, trading as

WALKER, TROKE & CO.

WHOLESALE AND EXPORT DRUGGISTS

82 CITY ROAD, LONDON, E.C.

SOLE MAKERS OF

INTRODUCED TO THE
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IMITATED BY MANY.
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GABRIEL & TROKE'S GELATINE CAPSULED HORSE BALLS.

PERMANENT IN SHAPE. EASY IN ADMINISTRATION. EFFICACIOUS IN ACTION. SAMPLE & RECIPES ON APPLICATION.

Drugs, Chemicals, and Pharmaceutical Preparations on best possible terms. Special Quotations to Export Buyers.

BATTLE'S VERMIN KILLER.

TRADE MARK.



Mice eat it readily and
Die on the spot.

Has an immense Sale, and wherever introduced never fails to give satisfaction.—Mice appear attracted to it as by magic, eat it readily, tumble over, and die on the spot. Rats usually die in their runs.—Parties troubled with Vermin may be cleared at once, either from Stacks, Houses, or Ships.

TESTIMONIALS.—Thousands might be published.

From Mr. THOMAS COLTON, Agent for Selby.—A friend of mine purchased a Packet of your VERMIN KILLER last night, doubting its efficacy to-day he called in to say that he had found fifteen dead mice, and had only used part of a packet.—From Mr. EDWARD STURDY, Flemington Mills.—I only received by post the Packet of your VERMIN KILLER, and found it as represented in your advertisement. It speedily destroyed all the mice in my granary. I enclose 2s. for two more Packets.—Leeds, November 6th, 1887.—I have tried BATTLE'S VERMIN KILLER, and have found it most effectual in clearing my premises of LARGE QUANTITIES OF RATS.—THOMAS S. CROSLAND.—Mr. Stead.

Sold in Packets, 3d., 6d., and 1s. each.

SOLE PROPRIETOR,

Mr. J. R. BATTLE, Chemist, Lincoln, England.

No Chemist or Storekeeper should be without a supply

INFALLIBLE! INFALLIBLE!!



1d., 2d., 3d., 6d., and 1s.

CANNOT BE EXCELLED.

Over 40 years' Reputation as the most Deadly
and Reliable

"KILLER"

extant, retaining its properties for any length of
time, in any climate.

Testimonial from Mr. JAS. THOMPSON, Farmer, Carlisle,
to Mr. PATTINSON, Chemist, Carlisle.

"SIR,—You can with confidence recommend 'HUNTER'S VERMIN DESTROYER.' It is the best thing I ever used, having often cleared stackyards with it of both rats and mice in a day or two."

OF ALL THE WHOLESALE HOUSES.

MANUFACTORY: DEWSBURY, ENGLAND.



USE ONLY

High-class Artistic

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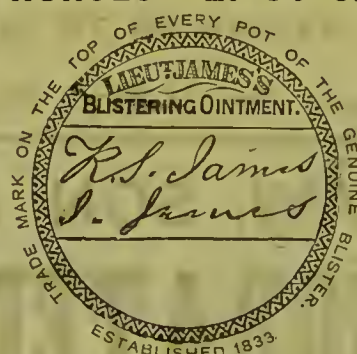
SEND FOR SAMPLES.

ESTABLISHED 1833.
HORSES.—LIEUT. JAMES'S BLISTER.

CAUTION.

The annexed Label is at
the top of every Pot of
the ORIGINAL and only
GENUINE BLISTER.

The Messrs. Barclay & Sons,
95 Farringdon Street, London,
and Messrs. Raimes & Co.,
Edinburgh, are now and have
been Agents 56 years.



AGENTS:—Sutton & Co., 10 Bow Churchyard; W. Edwards & Son, 157 Queen Victoria Street; Newbery & Son, 37 Newgate Street; Evans, Lescher & Evans, Bartholomew Close; Burgoyne, Burdidges & Co., 16 Coleman Street; Lynch & Co., 171A Aldersgate Street; Southall Brothers and Barclay, Birmingham; R. Hovenden & Sons, 93 & 95 City Road, Finsbury; Sanger & Son, 150 Oxford Street; Millard & Sons, 40 Charterhouse Square; Corry & Soper, Shad Thames; A. A. Campbell, Leadenhall Street, London; Woolley, Sons & Co., 59 Market Street, Manchester; Apothecaries Company, Virginia St., Glasgow; John Thompson, 58 Hanover Street, Liverpool; Bollen & Co., Bride Street, Dublin; McMaster & Co., 121 & 122 Capel Street, Dublin; Clarke & McMullen, Victoria Street, Belfast; D. Galbraith, Londonderry; M. C. Delaere, Pharmacie Anglaise, Bruxelles.

And by all Chemists, in Pots, 1/6, 2/9, 5/1, 9/1, and 16/1.

COLONIAL AGENTS:—MELBOURNE and WELLINGTON: Felton, Grimwade & Co.; SYDNEY, BRISBANE, and LAUNCESTON: Elliott Bros. & Co.; DUNEDIN and AUCKLAND: Kempthorne, Prosser & Co.; CALCUTTA: Smith, Stanistreet & Co.

W. H. JAMES, SOLE MANUFACTURER, STANFORD, FARINGDON, BERKS.

Advertised in "Bell's Life" 14 years. Beware of Spurious Imitations.

BY HER MAJESTY'S ROYAL LETTERS PATENT.



1884.

BREEDING.



It is an undisputed fact that the English horses of to-day are not what they were sixty or seventy years ago. Of the many causes which have led to such a deplorable result I do not propose to enter upon, further than to say that the chief cause appears to have been carelessness in selecting sound animals to breed from.

It seems strange that farmers, who have for years bestowed the most anxious care on the breeding of sheep

and cattle, and who by their skill in the selection of sires have brought their flocks and herds to the very acme of perfection, should have been so indifferent as to the breeding of horses. Yet such is the fact. In many instances the small farmers are really the breeders, keeping a mare to "do their work and rear a colt most years;" the colt being sold to a large farmer or grazier in the autumn. Hence it is that a small price is paid for a stallion's services; thus only securing a second or third rate sire.

In difficult cases of foaling it is always much better to obtain the aid of a qualified practitioner, than resorting to some of the plans adopted in country places of calling in the village leech, or by violent means attempting to relieve the mare, which often results in the loss of her foal or herself, and too often of both.

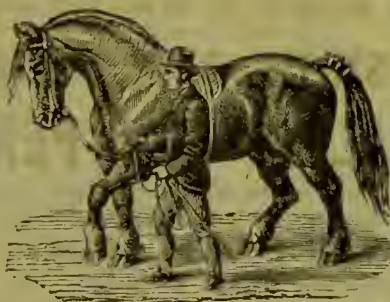
After foaling, a sheltered pasture should be selected for the mare and her foal, and good nourishing food given. Nothing will do dam and foal so much good as "Rumney's Food," which, being farinaceous and prepared by Mr. P. J. Rumney's patent process of cooking, is highly nutritious, is easy of digestion, and therefore far preferable to the usual food, especially at this time, when good feeding and good nursing are of the most vital importance.

A few words about Rumney's Food. Mr. P. J. Rumney, the proprietor of this food, is also the proprietor of Dr. Ridge's Food (for Infants, Children, and Invalids), which has gained a world-wide distinction. It is admitted by all to be possessed of the attributes that are claimed for it—viz, it is health-giving, strength-giving, and sustaining to a marvellous degree; therefore it is

considered to be an essential requisite in every household in the Kingdom, and is used in great quantities all over the civilised world.

But, to return to the subject of Rumney's Food for Horses, it will not be out of place to state here that which is already well known to a large circle of his friends—Mr. Rumney is the proprietor of the "Wonder" four-horse stage-coach, which runs daily nearly all the year round between London and the Abbey town of St. Albans, and is a thorough judge and admirer of horses, and a whip of the very first order.

It was owing to his fondness for horseflesh that he turned his attention to the production of a food for horses which should be cheap, nutritious, easy of digestion, &c.; in fact, taking his cue from the process of preparing Dr. Ridge's Food, he aimed at producing for horses a food that should



excel all other horse food in such a manner as Dr. Ridge's Food is universally admitted to excel all other "foods" that profess to be good for Infants and Invalids.

Mr. Rumney at first merely intended to use it in his own establishment, and for his own horses, keeping as he does about thirty all the year round in constant work. He has now been in the habit of using it in his stables for over twenty years, during which time, to quote his own words, "he rarely has a horse unwell."

Finding what a success the Food was in his own stables, he was induced to bring it before the public, and it is gratifying to know that it is meeting with a steadily increasing sale, the general cry of horse-masters and owners of studs being, "I only wish I had tried it before." I would advise those who are sceptical as to its beneficial effects to make an inspection of the stud from which the teams of the "Wonder Coach" are drawn, and they will be at once convinced that something more than good stable management and feeding must have contributed to the most exceptional bloom of condition that is so apparent in this fine stud. Nor is it in looks only that its good effects are felt; horses taking it regularly are more healthy, robust, have greater powers of endurance, and do their work with less apparent exertion than horses fed in the ordinary way.

ITS MANUFACTURE.

This is most carefully attended to, and is carried out under Mr. Rumney's personal supervision by his patent process of cooking, aided by the most finished and expensive machinery that science can devise. The Food is eight hours in process of cooking, during which time all that is dangerous and indigestible in that most nutritious of all corn, viz, wheat, is eliminated, and in no other form is it safe to give wheat to horses. The high authority of "Nimrod" as to the value of wheat has often been quoted.

IN THE HUNTING-FIELD.

How many hunting men have experienced, after a long and hard run great difficulty in some remote village, or at an out-of-the-way roadside inn, in getting oatmeal and water, so necessary for their jaded horses, who have generally a long and weary journey home. How often the three-cornered ostler replies, "No, sir, we're out on't; but I'll fetch some from the shop," which process takes a full half-hour, after which fifteen minutes are consumed in getting a pail, and ten more in waiting for some warm water. To hunting men, then, Rumney's Food should be considered an especial boon; a 2d. packet can be carried in a sandwich case under the sandwiches, and like the boy who "washed his face once a week whether it required it or not," the food will be there whether you want it or not, and will not be cumbrous or in the way, but ready for use in any case, either in a long or short day.

ON THE ROAD

Compared with former years, few people now drive long distances; still there are some who find it necessary to adhere to this mode of travelling, and some there are who do so for pleasure. To all who from whatever cause "stick to the road," it will be almost unnecessary to say anything in recommending this food to their notice, the remarks in the preceding note to hunting men applying in a like manner to those who find it necessary to call at roadside inns to refresh their steeds. If you have a supply of Rumney's Food in your conveyance it is ready at any time you may require it, and you will not be harassed by the delay occasioned by sending a mile or two to the nearest shop, and then perhaps get something so musty and foul that your horse turns his delicate nose away from it, but which, having been mixed, must be paid for, although no benefit has been derived from it.—*Civil Service Gazette*.



N.B.—Please read above carefully, as it may not appear again this year.

LONDON
ADDRESS }

P. J. RUMNEY, ROYAL FOOD MILLS, N.

ASK FOR COWAN'S HOSPITAL VACCINATION SHIELD,

1/10 PER DOZEN, 1 dozen in a box. Other qualities are 3/6, 7/, & 14/ per doz. Adult size, 7/, 11/, & 18/ per doz. When selling this SHIELD, please mention to your customer to read directions inside each box lid—to tie the Centre Ribbon tight to the Chemise above the shoulder, and the other two round the Arm, not very tight (if they do not get instructions when buying they generally put all four Ribbons round the Arm, and the Shields are not made to fix that way). Make sure you get Cowan's, any other will hurt your Sale for this article, and oblige, yours truly,

W. COWAN, INVENTOR & MAKER OF THE VACCINATION SHIELD, GLASGOW.

ESCHMANN BROS. & WALSH,

Inventors and Manufacturers of the

SOFT SILK FLEXIBLE CATHETER, GUARANTEED WITH WOVEN EYES.



TO BE HAD OF ALL SURGICAL INSTRUMENT MAKERS AND WHOLESALE HOUSES.

PURE SPIRITS OF WINE.

(STEAM STILL'S ONLY.)

60 o.p., 18/9 per gall.; 56 o.p., 18/3 per gall.

(SPECIAL QUOTATIONS TO LARGE CONSUMERS)

CASH WITH ORDER.

GEORGE PHILLIPS & CO., ST. ANDREW'S DISTILLERY, CLERKENWELL ROAD, LONDON, E.C.

BURROUGHS
Best Cale Street
Distillery,

Methylated
CHELSEA,
S.W.

Spirits
AT LOWEST PRICES.

Best
Miscible

Naphtha
FINEST WOOD NAPHTHA.

JAMES BURROUGH,
LONDON, S.W.

S.V.R.

PURE GRAIN SPIRIT 56 O.P., B.P.... 18/5

Do.

Do. **DOUBLE DISTILLED 18/9**

Cash with Order. Reductions for Larger Quantities than Two Gallons.

SAMPLES FREE.

STEPHEN SMITH & CO., BOW, LONDON, E.

S.V.R.

SPECIALITY FOR PERFUMERY.

This pure grain spirit, which has been thrice rectified and filtered through charcoal, is being largely used in making high-class Perfumes.

Price, 19/-, 56 o.p.; 19/6, 60 o.p. Cash with order.

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BOORD & SON,
RECTIFYING DISTILLERS & WINE MERCHANTS,

ALLHALLOWS LANE
and
BARTHOLOMEW CLOSE,

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OFFER LOWEST QUOTATIONS, ON APPLICATION, FOR

FINEST RECTIFIED SPIRITS OF WINE,

Methylated Spirit and Finish; Finest Orange Wine, Sherries,
and Malagas for Medicated Wines.

CARBOLIC POWDER, £4 TON.

1-ton lots and upwards.

PALE CARBOLIC ACID, 99 per cent. (No. 5), and CHLORIDE OF LIME below market prices.

CRUDE CARBOLIC ACID (Brown), 9d., 1/-, and 1/6 Gallon.

DARK SANITARY FLUID (to be used with 80 parts of water, making a *milky fluid*), 2/- PER GALLON.

10 PER CENT. DISCOUNT OFF ABOVE PRICES FOR CASH WITH ORDER.

IMPORTANT.—CHEMISTS Contracting to supply Public Authorities, &c. should write us for Samples and Quotations. Contracts made with the Trade for any period.

HAMILTON & CO., HIGH STREET, WANDSWORTH, LONDON, S.W.

JEYES' DISINFECTANTS.

THE ONLY COMPOUNDS SANCTIONED BY H.M. BOARD OF TRADE.

FLUID, POWDER, AND SOAP.

"PERFECT PURIFIER," in 6d. and 1s. bottles, and in bulk at 5s. per gallon. **SANITARY POWDER**, in 6d. and 1s. tins, and in bulk. **HOUSEHOLD AND DISINFECTANT SOAP**, from 4d. per lb. **TOILET SOAP**, in fancy boxes, from 1s. each. **DOG AND POULTRY SOAP**.

"JEYES' FLUID" is the most powerful germicide and antiseptic known, and *Non-poisonous*. (See *Lancet*, January 5, 1889.)

LIQUOR ANTISEPTICUS (JEYES'),

A Refined Preparation of Jeyes' Disinfectant Fluid, for Medical and Surgical use, and a perfect non-poisonous substitute for Carbolic Acid, Iodoform and Corrosive Sublimate. In 4-oz. and 12-oz. bottles, at 1s. 1½d. and 2s. 9d., or in bulk at 10s. per gallon.

JEYES' 10 % SURGICAL SOAP,

The best Antiseptic and Disinfectant Soap for Use by Surgeons after operations, &c. In Metal Boxes at 1s.

Of all Chemists and Druggists. Wholesale Terms and all particulars on application to

JEYES' SANITARY COMPOUNDS COMPANY, LIMITED, 43 CANNON STREET, LONDON, E.C.

WILEY'S CHEMICAL ESSENCE

FOR

LAMENESS IN HORSES.

Agents Wanted in every Town. Handbills, with Name and Address, supplied gratis.

50 YEARS' UNBROKEN SUCCESS.

SOLE MAKER & PROPRIETOR, J. ROOKLEDGE, CHEMIST, EASINGWOLD, YORKS

TO BE HAD OF USUAL WHOLESALE HOUSES.

PINE'S DEVONSHIRE OILS

PRICE

1 dozen,	13/6	Per doz. net in Wine Bottles. CARRIAGE PAID. Single Sample Bottle, 1/9
3 "	12/6	
6 "	11/6	
12 "	10/6	

FOR HORSES, COWS, SHEEP, AND LAMBS.

THESE CATTLE OILS are prepared from the Original and Valuable Recipe of WILLIAM YOUATT PINE, and are unsurpassed, their great sale being a sufficient guarantee of their EXCELLENCE.

PREPARED AND SOLD WHOLESALE BY

WALTER GREGORY, 31 Fore Street, WELLINGTON, SOMERSET.

PRIZE MEDAL,
International
Health Exhibition,
1884.

THE NEW PERMANENT

ENGRAVED WINDOW TABLETS

AWARD OF MERIT,
International
Sanitary Exhibition,
1881.

IN RUBY, BLUE, AMBER, AND OPAL GLASS.

Send particulars of size, subject matter, and colour, when price for one Tablet and upwards will be sent.

For Proprietary Articles, 100 8x6 Ruby Tablets, £3 15s. 0d.

J. R. CORSAN, THE LONDON SAND-BLAST WORKS, 80 GRAY'S INN ROAD, W.C.

TO PREVENT FRAUD, DEMAND BUSINESS CARD FROM TRAVELLERS.

BEESWAX.

W. H. B. WHITE { put up in 2-lb. parcels in cases of 54 lbs.

W. H. B. REFINED { In 2-lb. cakes in cases 130 lbs. 1-lb., $\frac{1}{2}$ -lb., and oz. cakes.

The purity of these goods is certified by the following eminent chemists: S. P. Sharpless, State Assayer, Boston; J. W. Taylor, Associate of the Society of Public Analysts of Eng., Montreal, P. Q.; Edward Davies, F.C.S. and T. I. C. and C. Royal Institution, LIVERPOOL, Eng.; Bernard Dyer, D.Sc., F.C.S., F.I.C., Member of the Society of Public Analysts, 17 Great Tower Street, LONDON, E.C., Eng.; Wm. T. Wenzel, Analyst and Assayer, San Francisco, Cal., and may be obtained of any of the leading Wholesale Druggists in the Northern and Midland Counties.

CRUDE BEESWAX,

Foreign and Domestic.

CERESINE,

Yellow and White.

PARAFFINE WAX,

Refined, all Grades.

We will deliver our goods in 5-cwt. lots ex quay, in any city which is the terminus of a Steamship Line throughout the Kingdom, without trouble or expense to the Buyer.

CABLE ADDRESS—"BOWDLEAR BOSTON."

OZOKERITE,

In Bales.

CARNAUBA,

or BRAZIL WAX.

JAPAN WAX

In Cases.

W. H. BOWDLEAR & CO., BOSTON, MASS., U.S.A.
Office and Warehouse—36 CENTRAL WHARF.

GENUINE INSECT POWDER

Dalmatian, from Closed Flowers.

1s. 8d. per lb., 160s. per cwt.

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WHOLESALE AND EXPORT DRUGGIST

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BRISTOL—Manufactories: Phoenix Wharf and Temple Gate. Offices: Temple Gate. Telegrams: "Phoenix Bristol."

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IN ALL THE ART SHADES.

For all kinds of decoration on Wood or Iron. Dry with a surface like Porcelain. Sold in small or large Tins, or in bulk. Prices and shades on application.

WHITE LEAD, ZINC WHITE,

PAINTS & COLOURS OF ALL KINDS.

MIXED PAINTS READY FOR USE,

In Tins, 1, 2, 4, 7, and 14 lbs. each.

HIGH-CLASS VARNISHES

Of all kinds, for Coachbuilders, Decorators, &c.

OIL BOILERS, REFINERS & MERCHANTS.

Export Orders receive special and prompt attention.

BALL DENOTES
COLOUR OF PAINT.

R. H. BARRETT'S NEW PATENT BOTTLE.

THE ONLY REALLY PERFECT CAPPED BOTTLE FOR VASELINE, POMADE, DRY POWDERS, &c.

PRICES (in 5-gross Lots):—Fitted with STRONG METAL CAPS, CORK-LINED, in various colours, very attractive in appearance—1 oz., 12/; $1\frac{1}{2}$ oz., 13/; 2 oz., 13/6; 3 oz., 16/; 4 oz., 18/ per gross.

Fitted with best BOXWOOD CAPS—1 oz., 15/6; $1\frac{1}{2}$ oz., 16/6; 2 oz., 17/6; 3 oz., 21/6; 4 oz., 24/6 per gross.

Chemists' and Perfumers' Bottles in great variety, Plain or Stoppered. Orders may be sent to the PRINCIPAL WHOLESALE HOUSES.

R. H. BARRETT,

FLINT GLASS BOTTLE WORKS,

THE OVAL, CAMBRIDGE HEATH, LONDON, E.

Telegraphic Address—"FOREFRONT LONDON."

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Buyers are respectfully solicited to compare with other Manufacturers.

**GASOGENES, SYPHONS,
FEEDING BOTTLES,
AND ALL KINDS OF
BOTTLES**

CHEAPER THAN EVER.

Price for Black-fitted Feeding Bottles for quantity, 37s. per gross, packed in one dozen cardboard boxes.

Prices can be had on application. Special quotations will be given for quantities.

Telegraphic Address,
"ASSORTED LONDON."

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16 Hatton Garden, London, E.C.
Rue Notre Dame de Nazareth, Paris.



LETHE.

GENTLEMEN,—We desire to call your attention to the fact that we are advertising a Specific for Neuralgia called "LETHE," and will be happy to forward you a sample for gratuitous distribution on receipt of card with address.

LETHE. Why is it a success?

1/1 $\frac{1}{2}$.

Because it does what it professes. It is an absolute "Specific" for Neuralgia and pain of every description.

LETHE. Cures a larger proportion of cases than all the other remedies combined.

1/1 $\frac{1}{2}$.

LETHE. Has been used in private practice for 15 years, and has an enviable reputation due to its marvellous results.

Yours truly,

W. WRIGHT & CO., 22 Gray's Inn Rd., LONDON.

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ARE RESPECTFULLY SOLICITED TO

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A few of our Leading Lines are quoted in

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 *THE TRADE SUPPLIED*
AT WORKS PRICES 

SOLE MAKERS

INTERNATIONAL FEEDING BOTTLES

EVERY CLASS AND DESCRIPTION OF BOTTLES AND GLASSWARE

CONSTANT ADDITIONS, NOVEL & ATTRACTIVE PATTERNS

NEW ILLUSTRATED LIST READY

SCREW CAPPED POTS, JARS, BOTTLES

 **BREFFITS'** 

(LIMITED)

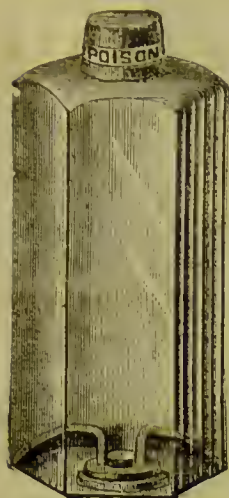
AIRE & CALDER BOTTLE CO

Chemists and Druggists' Bottle and Glassware Manufacturers

83 Upper Thames St., London

SEND FOR OUR PRICE LISTS

GLASS BALL STOPPERED BOTTLES



NEW POISON BOTTLE

HERMES' PATENT.

THIS Bottle supplies a want which has long been experienced by the Trade for a reliable and inexpensive Poison Bottle. The mouth of Hermes' Patent Poison Bottle is at the bottom of the bottle, and before its contents can be poured out the bottle must be reversed; this action being so entirely novel compels the most thoughtless person to reflect as to its contents.

PRICES, PER GROSS, fitted with Boxwood-topped Corks, complete:—

3-oz, **21/-** ... 4-oz, **26/-** ... 6-oz, **30/-** ... 8-oz, **31/-**

The Patentee has appointed as his Sole Manufacturers,

E. A. HEARN & CO., GLASS BOTTLE MANUFACTURERS,
381-3 KINGSLAND ROAD, LONDON, E.

GREAT REDUCTION IN PRICE OF GLASS BOTTLES, SYPHONS, ETC.

ESTABLISHED TWENTY-FIVE YEARS.

ROUND SHOULDER OR LIMB
JUICE BOTTLES.
1/9 3/3 4/6 6/ 6/6 7/8 8/6 14/ gross.
12 16 20 oz.
15/ 20/ 21/ gross.

VIALS (Long, Medium, or
Short Series).
1/2 oz., 2/3; 1 oz., 3/; 2 oz., 4/6 gross.
Good quality.

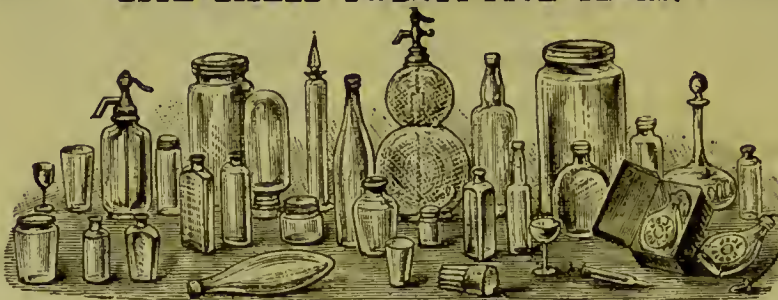
KALI (CONFECTIONER'S)
BOTTLES.
4 6 8 10 12 20 oz.
6/ 7/8 9/ 14/ 17/ 24/ gross.
GLASS SYRINGES (Best Quality).
1/2 oz., 14/; 1/4 oz., 18/; 1 oz., 27/;
2 oz., 49/ gross.

All and every kind of Bottle made,
and prices given for any particular
pattern.

SCREW FEEDING BOTTLES, Black Fittings complete, 10 gross lots, 30/ per gross.
WONDERFUL PRICES.

JONAS LANG & CO., Glass Works, ALSACE AND LORRAINE.
37 Quai Flamand, ANTWERP; and 28 Rue Notre Dame de Nazareth, PARIS.

SHOWROOMS AT 82 HATTON GARDEN, LONDON, E.C.



BEST WHITE FLINT OVAL DIS-
PENSING OR PERFUMERY BOTTLES
1/3 3/ 4/ 6/ 8/ oz.
6/ 7/ 8/6 9/6 10/6 per gross.
BEST WHITE FLATS.

3 3 4 6 8 oz.
6/ 7/ 8/8 9/8 10/8 per gross
PILL BOTTLES (Metal Screw Caps).
1/2 oz., 9/; 1 oz., 10/; 2 oz., 13/;
3 oz., 15/ gross.

POMADE BOTTLES (Metal
Screw Caps).
1 oz., 11/; 2 oz., 14/6; 3 oz., 13/;
4 oz., 21/ gross.

Our Metallic Capsules are superior
to anything in the Market.

SYPHONS: Block Tin Mounts,
best in the trade, 15/ doz. f.o.b.
Antwerp.

SELTZOGENES: 5 pint, 12/ each.
WONDERFUL PRICES.

DISPENSING BOTTLES & PHIALS

THE ISLINGTON GLASS BOTTLE COMPANY,
153 UPPER THAMES ST., LONDON, E.C.

Will send their Special Package of Dispensing Bottles, containing as
follows:—

		£	s.	d.
2 Gross 8-oz. Fla ^t , at 7s. 6d.	0	15	0
2 " 6-oz. " " 7s. 6d.	0	15	0
2 " 4-oz. " " 6s. 6d.	0	13	0
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Cotton Cloth, 7 in. wide	14	per dozen yard rolls.
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On 10-yard	1/12 1/14 1/16 1/20 1/24 1/28 1/32	3	in. wide.
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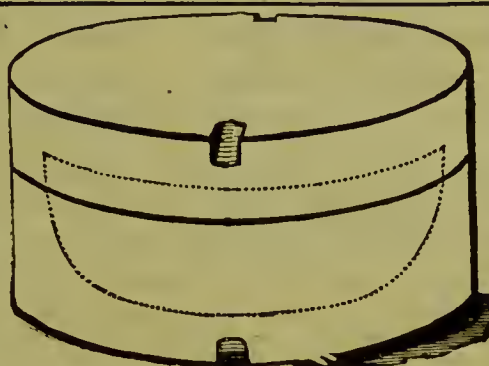
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These Pots are beautifully glazed and finished, and, being very light, are specially adapted for sending by post.

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1 dr.	2 dr.	1/2	3/4	1	1 1/4	2	3	4	6	8 ounces.	
1/6	1/6	1/6	1/7	1/8	1/10	2/2	2/10	3/4	4/6	5/6	per doz.
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1/7	1/8	1/10	1 1/4	2	3	4	6	8 ounces.			
			2/-	2/4	3/-	3/8	5/-	6/-	per doz.		

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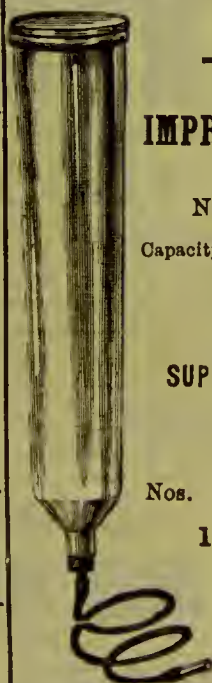
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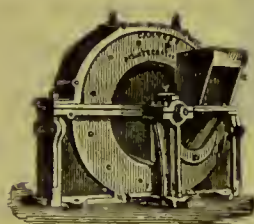
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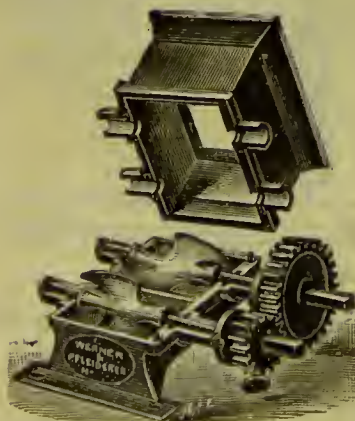
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